MICROFILM

START OF ROLL

ROLL NO.

142

Construction Contracts

Begins # 7289

#7289 continues from reel 141

F-181(23) Saddle Mt. Jct.-Little North Fork Nehalem R. Sec., of Sunset Hwy. (Grad., pav., struct.) 1969

#7289

Dec. 29. 1969 8:45 AM

I Went to Rohde's office to listen to phone call he had set up with Aetna Casualty Co Concerning their sequest to send to the Casualty Co. payments on Houck's contracts.
Mr. George of the Surety Co & Rohde talked. The surety man said they had in their possession an assignment of funds signed by Houck & would send us a copy if necessary. However, they are to meet with Houck this A.M. & hope to get a letter from Houck Consenting. If they do, they will deliver it to us this PM

F Queen

12-24-69 — Wed
about 4 PM

Phoned Aetna Casualty Co in Portland 222-9111
No answer (re their holdup on Houck contract payment)

12-26-69 11AM Friday

Phoned Aetna again at same no. Girl answering
Phone said no one in their Office. It will be
open again Dec. 29 (Monday

12-26

Roy Houck & Atty phoned in to get release Z check
on Contract 7185. They said they would call Rohde

7E

12/23/69

Tel Call 4:20 PM

Don Clark (Salem) Ofc. (Ph. 222-9111)

Aetna Casualty Co.

Meeting with

Roy Houck Sons Corp.

(claims forthcoming)

They want to rec—all future checks, (Retainage & Est.) on all Aetna Bonded jobs Houck as a prime

confirm within 24 hrs.

1201 S.W. 12th

Port—Or. 97201

RECEIVED
JAN 8 - 1970
F-181 (23)
7289

7289 C

Phond conversation with Wm. Sexton, U. S. National Bank, with Rohde & Lindas.
~~Friday~~, Jan 2, 1970 at 2 p.m.

Mr. Sexton informed us that John Huisman, their attorney will be getting in touch with Mr. Rohde.

Mr. Sexton inquired as to why, if we knew, the bonding company placed a hold on Houck's funds

Mr. Rohde stated he didn't know the exact reason, but he did know that the surety was receiving regular credit reports on the contractor and that they must have felt their position in the matter was in jeopardy. He informed Mr. Sexton that he did know that the Surety and Houck had had conferences pertaining to the matter before bringing the same to our attention.

Mr. Rohde did inform Mr. Sexton that he had heard the bank had an assignment of some kind, and if they did, we would expect them to take steps to protect their interest. However, if matters got to the point the same couldn't be resolved and the matter of their assignment was brought to our attention, we would probably feel we must place the matter and money before some court to determine who should get what.

Mr. Sexton stated that he recognized that the bonding companies rights were superior to theirs, but he wished the surety had come to them first, because he felt the matter could have been resolved without bringing us into the matter.

Mr. Rohde, recognizing there were two sides to the question, informed Mr. Sexton that the representatives of the bonding company had informed us that their only desire in doing what they did was for their protection and to aid the contractor.

To which Mr. Sexton replied it now appears that our next step is to get in touch with the bonding company to see if they could work out the problem.

Rohde stated that this is what he had advised both parties to do when this situation was called to his attention. 'I told them they aught to try and get together "

Sexton then wanted to know how long we were going to hold the money, to which Mr. Rohde stated he had no way of knowing at this time. We were just advised by the surety that they were claiming the same under their indemnity agreement or assignment they had.

Sexton asked if it was true that some vice president of the bonding company would be here Mond or Tuesday to try to work something out. We had heard this but didn't know when the party would arrive.

Respecting claims of laborers or materialmen, Rohde informed Sexton that such claims, when and if they come in, are directed to Mr. Query. If the retained amounts are great enough, no action is taken respecting the claims at that time. At least we, in the legal section knew nothing of the claims, if any, as of this time.

Sexton again reiterated they will go to the Bonding Company to see what can be done, and thanked us for our courtesy and talking with him.

NOTED
G. E. ROHDE

Ronald L. Lindas

RECEIVED
JAN 29 1970
MAIL FILING

Ætna
LIFE & CASUALTY
Casualty & Surety Division
201 S. W. Twelfth Avenue
Portland, Oregon 97205
222-9111

December 31, 1969

F-181(23)
7289

Floyd Query, Secretary
Oregon State Highway Commission
State Highway Department
State of Oregon
Salem, Oregon

REGISTERED MAIL - RETURN RECEIPT REQUESTED

Gentlemen:

Subject: Surety Bond No. 42 S 28142 BC - Contract No. 7289

This refers to the contract entered into between the State of Oregon and Roy L. Houck Sons' Corporation for grading, paving, and structure on the Saddle Mountain Jct.-Little N. Fork Nehalem River Section of the Sunset Highway in Clatsop County and to the bond, effective August 26, 1969 in the penal sum of $1,240,903.50 executed by the Ætna Casualty and Surety Company on behalf of Roy L. Houck Sons' Corporation conditioned for the faithful performance of that contract and for the payment of labor and material bills in connection therewith.

As a condition of our execution of this bond, Roy L. Houck Sons' Corporation executed in favor of the Ætna Casualty and Surety Company an application for Contract Bond and Agreement of Indemnity, a photostatic copy of which is attached. We direct your attention to Paragraphs "Third", "Fourth" and "Fifth" on page 3 of this Application and Agreement.

Roy L. Houck Sons' Corporation has failed to pay labor and material bills incurred in connection with the performance of this contract, and for this and other unspecified reasons, the assignment of contract funds to The Ætna Casualty and Surety Company as specified in the enclosed Bond Application is in full force and effect. In addition, we claim the unpaid contract funds by reason of our equitable rights as surety.

Therefore, you are hereby notified that all further payments under this contract should be made only to The Ætna Casualty and Surety Company or with its written consent.

Very truly yours,

W. W. Laughlin

W. W. Laughlin, Manager
Claim Department

RECEIVED
JAN 5 1970
OREGON
STATE HIGHWAY COMMISSION

Copies to
Rohde & Lindas
10:45 AM
1-5-70
J.E.

Encl. Application for Contract Bond & Agreement of Indemnity
General Contract of Indemnity

Ætna Life Insurance Company/The Ætna Casualty and Surety Company/The Standard Fire Insurance Company

The Ætna Casualty and Surety Company

Hartford, Connecticut 06115

Branch Office _____

APPLICATION FOR CONTRACT BOND AND AGREEMENT OF INDEMNITY

Bond Number 42 S 28142

NOTE! {Copy of contract, specifications and drawings, and applicants financial statement must accompany this application and all questions answered fully. The Company reserves the right to decline this application and to withhold reason for declination, as all information relative thereto is regarded as confidential.

1. Full name of applicant Roy L. Houck Sons' Corp. Age _____
(Give full name. If corporation, give exact corporate title.)

2. Business address P. O. Box 671 Salem, Oregon
(Street, City and State)

3. Kind and amounts of bonds required: Proposal Bond $_____ Faithful Performance Bond $ 1,240,903.50

Labor and Material Bond $_____ Advance Payment Bond $_____ Maintenance Bond $_____

4. If bond applied for is Proposal Bond what is approximate amount of contract $_____ Date of Bid Opening _____ 19____

5. The amount of contract is $ 1,240,903.50 Date of Award 8/26/69 Date of Contract 8/26/69

6. To whom is bond given State of Oregon Contract # 7289 Structures Little N. Fork Nehalem R Sunset Highway
(Give full name. If a corporation, give exact corporate title.)

Business address _____

7. Nature of contract _____
(Give concise description and location.)

8. Name and address of Engineer or Architect in charge of work _____

9. Date work is to start _____ Completed by _____ Penalty for non-completion _____

10. Are any payments made in bonds, mortgages, stocks, certificates, warrants, assessments, etc.? _____

11. Percentage retained from payments until completion _____

12. How long must work be kept in repair, or guaranteed, after completion? _____

Is this repair or maintenance guarantee limited to defects in workmanship and materials? _____

If not, describe guarantee fully _____

13. Applicant's estimate of cost (excluding profit) $_____ Estimate of Engineer or Architect $_____

DUPLICATES
ORIGINAL MAILED H. O.

INFORMATION REGARDING OTHER BIDS:

	NAME OF CONTRACTOR	ADDRESS	AMOUNT OF BASE BID
		Date 10-1-69 By [illegible]	
LOW BIDDER			$
2ND BIDDER			
3RD BIDDER			

(5-891-M) 12-66

14. Will applicant sub-let any parts of the work? ..... Will sub-contractors be required to furnish Corporate Surety Bond? .....

Give full particulars.

AMOUNT	CHARACTER OF WORK	NAME OF SUB-CONTRACTOR	ADDRESS	NAME OF SURETY

15. Name 3 largest contracts that you have completed similar to the one here considered, giving in each case,

CONTRACT PRICE	KIND OF CONSTRUCTION	NAME AND ADDRESS OF OWNER	NAME AND ADDRESS OF ENG. OR ARCH.

16. Give information below about all contracts you now have under way, including any other outstanding bids.

CONTRACT PRICE	PERCENTAGE COMPLETED	KIND OF CONSTRUCTION	SURETY	LOCATION OF WORK	NAME AND ADDRESS OF ENG. OR ARCH.

17. Will any new or additional plant be purchased? ..... Give estimated cost. $..... Use separate sheet if necessary.

18. In what other business, if any, are you interested? .....

19. Has application for this bond been made to another company? ..... If so, what company? .....

20. Have you ever failed in business? ..... Are you having any controversy with anyone over any contract, or payment for labor or material bills on any contract? ..... Are there any mechanic's liens filed on any of your work anywhere? ..... Are there any judgments against you? ..... Total amount? $.....

21. On the work for which this bond is written, will you carry the following insurance? Employers Liability ..... Compensation Insurance ..... Public Liability ..... Contingent Liability ..... Auto ..... Fire .....

Other forms .....

22. What Life Insurance do you carry? .....
(Amount, name of company)

23. To whom payable? .....

24. **If a co-partnership, answer these questions:** Date formed .....

Names of all individuals composing same.

NAME	ADDRESS	AGE

IMPORTANT—Separate financial statement must be completed and signed by each member, showing his individual assets and liabilities, exclusive of his interest in the firm's business.

25. Has any member of the firm ever failed in business? .....

26. **If a corporation, answer these questions:**
In what State incorporated? ..... When incorporated? ..... Principal office .....

27. References: Give only Engineers or Architects, or Owners, for whom you have done work.

NAME	ADDRESS	BUSINESS

The undersigned hereby affirm, that the foregoing declarations made and answers given, are the truth, without reservation, and are made for the purpose of inducing THE ÆTNA CASUALTY AND SURETY COMPANY, of Hartford, Connecticut, to become or to procure surety and co-surety, if necessary, on whatever bonds may be required in connection with the project hereinbefore mentioned, all of which bonds are hereby applied for and all of which will be referred to in the singular as "bond", and they hereby appoint said THE ÆTNA CASUALTY AND SURETY COMPANY agent for the procurement of such surety and co-surety.

The undersigned, hereinafter called the Indemnitor(s), in consideration of said THE ÆTNA CASUALTY AND SURETY COMPANY, or any Company or Companies which it may procure in substitution or as co-surety jointly with it (all hereinafter called the Company), executing or consenting to execute such bond or bonds as are herein applied for, it being understood that this application shall be deemed to cover all bonds or other obligations finally executed by the Company in connection with the contract hereinabove described, hereby covenant and agree with the Company, its successors and assigns, as follows:

First: The Indemnitor(s) will pay the Company in advance a premium charge based on the rates of the Company in force as of the effective date of this bond and will thereafter pay any renewal premiums which may become due until the Surety shall, in the manner provided by law, be discharged and released from any and all liability and responsibility upon said bond and all matters arising therefrom and competent written legal evidence of such discharge or release satisfactory to the Company is served thereon at its Home Office in the City of Hartford, Connecticut.

Should the amount of the contract herein stipulated, and upon which premiums are based, be increased or decreased, it is understood and agreed that the premium will be adjusted accordingly, calculated at the rate upon which the premium hereinabove stipulated is calculated.

Maintenance or Guarantee

If any maintenance or guarantee of the work, after completion, is provided for in the contract, for a term exceeding one year, for which either the contract bond or any separate bond which may be executed is liable, the Indemnitor(s) agree to pay the Company in advance for the entire term of said maintenance guarantee a premium, calculated at the rate of $..... per $1,000, computed on the entire amount of the contract price. The contract premium, if there be no maintenance or guarantee, will be paid, as above, until the Company shall be discharged or released from any and all liability and responsibility upon said bond, and all matters arising therefrom, and competent written legal evidence of such discharge or release, satisfactory to the Company, is served thereon at its Home Office in the City of Hartford, Connecticut. Where the contract bond covers any maintenance or guarantee of the work, the contract premium will be paid, as above, only until the Indemnitor(s) furnish the Company with like evidence of the completion of the contract, which will be the commencement date of maintenance and maintenance premium.

Second: The Indemnitor(s) will at all times indemnify and keep indemnified the Company, and hold and save it harmless from and against any and all damages, loss, costs, charges and expenses of whatsoever kind or nature, including counsel and attorney fees, whether incurred under retainer or salary or otherwise, which it shall or may at any time sustain or incur by reason or in consequence of its suretyship or procurement of suretyship in connection with all bonds or similar obligations referred to hereinbefore, or which it may sustain or incur in connection with any litigation, investigation, collection of premiums, or other matter connected with such suretyship, including any suit instituted to enforce the obligations of this agreement of indemnity; and the Indemnitor(s) will pay over to the Company, its successors and assigns, all sums of money which it or its representative shall pay or cause to be paid, or become liable to pay on account of such suretyship, and on account of any damages, costs, charges, and expenses of whatsoever kind or nature in connection therewith as aforesaid, such payment to be made to the Company as soon as it shall have become liable therefor, whether it shall have paid out such sum or any part thereof or not, and said Company is hereby authorized to prove such expenses, costs and attorney fees, in any action or proceeding and to include the same in any judgment.

The Indemnitor(s) further agree that in the event of their failure to pay any premium charge when due, said premium shall forthwith be payable out of any fund then due or thereafter to become due from the obligee on account of the above mentioned contract covered by the bond, and upon the delivery to the obligee of a copy of this agreement with a notice of the non-payment of said premium, the obligee is authorized and directed to apply the fund as it accrues or so much thereof as may be necessary in payment of said premium and interest, costs, charges, expenses and attorney's fees pursuant to this agreement.

Third: That for the better protection of the said Company, and as of the date hereof, the undersigned Indemnitor(s) who are named as principal(s) in said bond do hereby assign, transfer and convey to the said Company all rights, title and interest in and to all the tools, plant, equipment and materials of every nature and description that the said principal(s) may now or hereafter have upon said work, or in or about the site thereof, or used in connection with the work and located elsewhere, including as well materials purchased for or chargeable to said contract, which might be in process of construction or storage elsewhere, or in transportation to said site, hereby assigning and conveying also all rights in and to all sub-contracts, which have been, or may hereafter be entered into, and the materials embraced therein, and the said principal(s) authorize and empower said Company, its authorized agents or attorneys, to enter upon and take possession of such tools, plant, equipment, materials and sub-contracts, and enforce, use and enjoy such possession, upon the following conditions, viz.: This assignment shall be in full force and effect as of the date hereof: (1) Should the said principal(s) fail to pay any premium charge when due, or should they fail or be unable to complete, in accordance with its terms, any contract covered by a bond of this Company, or in the event the said principal(s) abandon the work under, or fail to comply with the terms or conditions of, any such contract. (2) If the said principal, being an individual, dies, absconds, is a fugitive from justice or is convicted of a felony. (3) If the principal(s) fail to pay bills incurred on the work, when they become due and payable, whether the Company may be liable for such bills or not. (4) If any proceedings are brought against the principal(s) alleging that they are insolvent, or if any receiver or trustee for the benefit of creditors is appointed, whether such principal(s) are insolvent or not. (5) If any proceedings are brought which deprive the principal(s) of the use of any part of the equipment used in connection with the work under their contract so as to hinder, delay or impede the normal and satisfactory progress of the work.

Fourth: That the said Company, as surety on said bond, as of this date, shall be subrogated to all rights, privileges and properties of the principal(s) in said contract, and said principal(s) do hereby assign, transfer and convey to said Company all the deferred payments and retained percentages arising out of this contract, and any and all monies and properties that may be due and payable to said principal(s) at the time of the happening of any of the occurrences mentioned in clauses one, two, three, four and five of the next preceding paragraph, or that may thereafter become due and payable to said principal(s) on account of this contract or on account of extra work or materials supplied in connection therewith, hereby agreeing that all such monies and the proceeds of such payments and properties shall be the sole property of the said Company, and to be by it credited upon any loss, damage, charge and expense sustained or incurred by it as above set forth under any bond of suretyship it has executed for the undersigned principal(s).

Fifth: Any security taken by the Company, in connection with said bond, including the assignment of monies coming due from the contract, and the assignment of equipment and materials used on or in connection with such contract, may be held by the Company, as a protection against any bond heretofore or hereafter executed by the Company on behalf of the undersigned principal(s), and the Company may sell or realize upon the said collateral at its discretion, at public or private sale, and with or without notice to the Indemnitor(s) of the time or place of such sale, for the purpose of protecting itself against any claim, demand or loss under the said bond, or any other bond so outstanding, and, after indemnifying itself fully for any loss incurred on any bond issued at the request of the said principal(s), any balance, after such reimbursement, shall be paid to said principal(s), after all liability of the Company has ceased to exist under said bond or bonds.

Sixth: That upon the making of any demand, or the giving of any notice, or the institution of any action or proceeding upon any claim, or preliminary to determining or fixing any liability which the surety may be called upon to discharge, by reason of such suretyship, the Indemnitor(s) will immediately notify the surety thereof, in writing, at its Home Office in the City of Hartford, Connecticut.

Seventh: That it shall not be necessary for the Company to give the Indemnitor(s) notice of any act, fact or information, coming to the notice or knowledge of the Company, concerning or affecting its rights or liability under said suretyship, or the rights or liability of the Indemnitor(s) hereunder, notice of all such being hereby expressly waived.

Eighth: The Indemnitor(s) agree to accept vouchers or affidavits of any loss paid by the Company under the bond herein applied for together with vouchers or affidavits of payment of all costs whatever, incurred by the Company in adjusting such loss, or in completing said contract, as conclusive evidence against the Indemnitor(s) of the fact and extent of the Indemnitor's liability, under said application, to the Company.

Ninth: That the Company shall have the exclusive right for itself, and for the Indemnitor(s), to decide and determine whether any claim, demand, liability, suit, action, order, judgment or adjudication, made or brought against the Company and/or principal on said bond, jointly or severally, shall or shall not be defended, tried or appealed, and its decision shall be final, conclusive and binding upon the Indemnitor(s), and any order, judgment or adjudication made, entered or affirmed as a result thereof, or any loss, cost, charge, expense or liability thereby incurred, sustained or paid, shall be borne by the Indemnitor(s) and the Indemnitor(s) especially consent thereto.

Tenth: That in event any claim is filed with the Company on the bond herein applied for, or if any suit is brought against the Company on said bond or in connection therewith, the Indemnitor(s) hereby covenant and agree to immediately on demand deposit with the Company in current funds an amount sufficient to indemnify it up to the full amount claimed or sued for.

Eleventh: That no act or omission of the Company in modifying, amending, limiting or extending any instrument executed by the Company and no assent or refusal to assent by the Company to any modifications, amendments, limitations or extensions of the original contract or any supplemental or other agreements whatever, shall in any wise affect the liability of the Indemnitor(s) hereunder, nor shall the Indemnitor(s) be released from this obligation by reason thereof; and it is further agreed that the Company may alter, change, modify, amend, limit or extend any instrument and may execute renewals thereof, or other and new obligations in its place or in lieu thereof, or may assent to such alterations, changes, modifications, amendments, limitations or extensions of any instrument without notice to the Indemnitor(s), notice being expressly waived, and in such case the Indemnitor(s) shall be liable to the Company as fully and to the same extent on account of any such changed, modified, limited or extended instrument or such renewals thereof, or other or new obligations in its place or in lieu thereof, as fully as if such instrument were described at length herein.

Twelfth: That these covenants shall be binding not only upon the Indemnitor(s), jointly and severally, but as well upon their respective heirs, executors, administrators, successors and assigns, and the Indemnitor(s) hereby affirm that their liability under this instrument is not dependent upon the procurement of any other signatures to same.

Thirteenth: The words Indemnitor(s), applicant(s), and principal(s), or personal pronouns used to refer to said words, shall apply regardless of number or gender.

Fourteenth: If application is for proposal or bid bond and if the applicant is awarded the contract the applicant shall not be obligated to secure his "contract" bond from the Company nor shall the Company be obligated to sign such bond.

WITNESS the following signature(s) and seal(s) this 26th day of Aug, 1952, homestead and all other exemptions being hereby expressly waived.

Witness _____ _____ Applicant (Seal)
Individual

_____ Applicant (Seal)
Partnership

Witness _____ By _____

ROY L. HOUCK SONS' CORP. Applicant (Seal)
Corporation

Attest _____ Secretary By _____ President

NOTE: The signature of the applicant(s) who are principal(s) in said bond, and each indemnitor who is not an applicant, must be witnessed. Where a co-partnership signs as indemnitor and not as applicant, firm name must be signed and also the signature of each member of the firm.

In consideration of The Ætna Casualty and Surety Company executing the bond hereinabove applied for, we jointly and severally join in the foregoing indemnity agreement.

If indemnitors are individuals sign here:

INDEMNITORS

Witnesses

_____ Witness as to _____ (Seal)

_____ Witness as to _____ (Seal)

_____ Witness as to _____ (Seal)

If indemnitor a partnership or corporation sign here:

_____ (Seal)
Partnership or Corporation

Witness _____ By _____ (Seal)

Witness _____ _____ (Seal)

Witness _____ _____ (Seal)

Witness _____ _____ (Seal)

The Aetna Casualty and Surety Company

Hartford, Connecticut 06115

I.E.66817

GENERAL CONTRACT OF INDEMNITY

THIS AGREEMENT, made and entered into this ..14th day of .....May....., 19..69

by and between ..Roy L. Houck Sons' Corporation; Beaver State Sand & Graval, Inc.; Beaver State Ready-Mix; Fabricators Incorporated; Roy L. Houck, Jr.; Carlos T.... Houck; James E. Houck.....

.....

.....

.....

.....

hereinafter called the Indemnitor(s), and THE ÆTNA CASUALTY AND SURETY COMPANY, of Hartford, Connecticut, which Company, in accepting this Agreement, is acting on its own behalf and on behalf of any other companies it may procure to act as Surety or Co-Surety, all hereinafter referred to as "Surety," WITNESSETH:

WHEREAS, in the transaction of business certain bonds, undertakings and other writings obligatory in the nature of a bond, including those covering joint venture agreements or arrangements, have heretofore been, and may hereafter be, required by, for, or on behalf of the Indemnitor(s), or any one or more of the parties included in the designation Indemnitor(s), and application has been made and will hereafter be made to the Surety to execute such instruments as Surety.

NOW THEREFORE, in consideration of the premises and of the sum of One ($1.00) Dollar, duly paid by the Surety to each of the Indemnitors, the receipt whereof is hereby acknowledged, and in further consideration of the execution by the Surety of obligations of the nature aforesaid to be given by, for, or on behalf of the Indemnitor(s), or any one or more of the parties included in such designation, and for other good and valuable considerations, the undersigned Indemnitor(s), and each of them, for themselves, their heirs, personal representatives and assigns, do hereby jointly and severally covenant and agree with the Surety, its successors and assigns as follows:

FIRST: That they will at all times indemnify and keep indemnified the Surety, and hold and save it harmless from and against any and all damages, loss, cost, charges and expenses of whatsoever kind or nature, including counsel and attorney fees, whether incurred under retainer or salary or otherwise, which it shall or may at any time sustain or incur by reason or in consequence of its suretyship or procurement of suretyship, or which it may sustain or incur in connection with any litigation, investigation, collection of premiums, or other matter connected with such suretyship, including any suit instituted to enforce the obligations of this agreement of indemnity; and the Indemnitor(s) will pay over to the Surety, its successors and assigns, all sums of money which it or its representative shall pay or cause to be paid, or become liable to pay on account of such suretyship, and on account of any damages, costs, charges, and expenses of whatsoever kind or nature in connection therewith as aforesaid, such payment to be made to the Surety as soon as it shall have become liable therefor, whether it shall have paid out such sum or any part thereof or not, and said Surety is hereby authorized to prove such expenses, costs and attorney fees, in any action or proceeding and to include the same in any judgment.

SECOND: The Indemnitor(s) further promise and agree to pay the Surety, at its Home Office in the City of Hartford, Connecticut, on the day of the date of each such obligation, a premium or charge based on the rates of the Surety in force at the time of the execution of such obligation, or procuring the execution thereof, and will thereafter pay any renewal premiums which may become due until the Surety shall, in the manner provided by law, be discharged and released from any and all liability and responsibility upon and from each such obligation, and all matters in any wise incident thereto, and until the Indemnitor(s) shall serve or cause to be served upon the Surety competent written legal evidence, satisfactory to the Surety, of its final discharge or release from each such obligation and all liability by reason thereof.

THIRD: That upon the making of any demand or the giving of any notice, or the institution of any action or proceeding upon any claim, or preliminary to determining or fixing any liability which the Surety may be called upon to discharge, by reason of such suretyship, the Indemnitor(s) will immediately notify the Surety thereof, in writing at its Home Office in the City of Hartford, Connecticut.

FOURTH: That Surety shall have the exclusive right for itself, and for the Indemnitor(s), to decide and determine whether any claim, demand, liability, suit, action, order, judgment or adjudication made or brought against the Surety and/or Principal on any bond, jointly or severally, shall or shall not be defended, tried or appealed, and its decision shall be final, conclusive and binding upon the Indemnitor(s), and any order, judgment or adjudication made, entered or affirmed, as a result thereof, or any loss, cost, charge, expense or liability thereby incurred, sustained or paid, including attorneys' fees, shall be borne by the Indemnitor(s), and the Indemnitor(s) especially consent thereto.

FIFTH: That in event any claim is filed with the Surety on any bond executed at the request of the Indemnitor(s), or if any suit is brought against the Surety on any such bond, or in connection therewith, the Indemnitor(s) hereby covenant and agree to immediately on demand deposit with the Surety in current funds an amount sufficient to indemnify it up to the full amount claimed or sued for.

SIXTH: The Indemnitor(s) agree to accept vouchers or affidavits of any loss paid by the Surety by reason of such suretyship, together with vouchers or affidavits of payment of all costs and expenses whatever, incurred by the Surety in adjusting such loss, or in completing any contract, as conclusive evidence against the Indemnitor(s) of the fact and extent of the Indemnitor's(s') liability to the Surety.

SEVENTH: That no act or omission of the Surety in modifying, amending, limiting or extending any instrument executed by the Surety, and no assent or refusal to assent by the Surety to any modifications, amendments, limitations or extensions of any original contract or any supplemental or other agreements whatever, shall in anywise affect the liability of the Indemnitor(s) hereunder, nor shall the Indemnitor(s) be released from this obligation by reason thereof; and it is further agreed that the Surety may alter, change, modify, amend, limit or extend any instrument and may execute renewals thereof, or other and new obligations in its place or in lieu thereof, or may assent to such alterations, changes, modifications, amendments, limitations or extensions of any instrument without notice to the Indemnitor(s), notice being expressly waived, and in such case the Indemnitor(s) shall be liable to the Surety as fully and to the same extent on account of any such changed, modified, limited or extended instrument or such renewals thereof, or other or new obligations in its place or in lieu thereof, as fully as if such instrument were described at length herein.

EIGHTH: That it shall not be necessary for the Surety to give the Indemnitor(s), or any one or more of them, notice of any act, fact, or information, coming to the notice or knowledge of the Surety concerning or affecting its rights or liability under any such instruments executed by it, or the rights or liability of the Indemnitor(s) hereunder, notice of all such being hereby expressly waived.

NINTH: It is agreed that in the event of any claim or demand being made by the Surety against the Indemnitor(s), or any one or more of the parties included in such designation, by reason of the execution of the above mentioned obligations, the Surety is hereby expressly authorized to settle with one or more of the parties included in such designation individually, and without reference to the others, and such settlement or composition shall not affect the liability of any of the other parties included in the designation Indemnitor(s), and the Indemnitor(s) hereby expressly waive the right to be discharged and released by reason of the release of one or more of the joint debtors, and hereby consent to any settlement or composition that may hereafter be made.

TENTH: This agreement shall not, nor shall acceptance by the Surety of payment for its suretyship, nor agreement to accept, nor acceptance by it at any time of other security, in any way abridge, defer or limit its right to be subrogated to any right or remedy, or limit or abridge any right or remedy which the Surety otherwise might or may have, acquire, exercise or enforce.

ELEVENTH: The Surety may at any time hereafter take such steps as it may deem necessary or proper to obtain its release from any and all liability under any of the above mentioned obligations, or under any other instruments within the meaning of section Seventh hereof, and secure and further indemnify itself against loss, and all damages and expenses which the Surety may sustain or incur, or be put to, in obtaining such release, or in further securing itself against loss, shall be borne and paid by the Indemnitor(s).

TWELFTH: This agreement may be terminated by either of the parties hereto upon written notice of not less than ten (10) days, but any such notice of termination shall not operate to modify, bar or discharge the liability of any party hereto, upon or by reason of any and all such obligations that may be then in force.

THIRTEENTH: We acknowledge that the execution, from time to time, of bonds or undertakings under this General Contract of Indemnity is the compensation for this General Contract of Indemnity; and we each of us hereby affirm that our liability under this instrument is not dependent upon the procurement of any other signature(s) to same.

We further agree that our liability shall be construed as the liability of a compensated surety, as broadly as the liability of the Surety is construed towards its Obligee.

FOURTEENTH: The word Indemnitor(s), or personal pronouns used to refer to said word, shall apply regardless of number or gender.

FIFTEENTH: IT IS UNDERSTOOD AND AGREED that the Surety may decline to execute any obligation without impairing the validity of this General Contract of Indemnity, and in any case where the Surety executes a bid bond the Indemnitor(s) shall not be obligated to secure the final bond from the Surety, nor shall the Surety be obligated to sign such final bond.

The undersigned Indemnitor(s) fully appreciate that this agreement is intended to cover whatever bonds (whether or not covered by any application signed by any one or more of the Indemnitors—such application to be considered between the parties hereto as merely supplementary to this General Contract of Indemnity) may be executed by the Surety on behalf of the undersigned Indemnitor(s), or any one of them, from time to time, and over an indefinite period of years, until this agreement shall be cancelled in accordance with the terms hereof.

We have read this indemnity agreement carefully. There are no separate agreements or understandings which in any way lessen our obligations as above set forth.

WITNESS the following signature(s) and seal(s) the day and year first above written.

INDEMNITORS

If Indemnitor a corporation, sign below on this page

(See over for partnership and individual Indemnitors)

IMPORTANT: If a corporation, corporate name must be shown in full, with the officers' names and titles printed or typed below their signatures, corporate seal must be affixed, and appropriate resolution of approval must be attached.

If a co-partnership the firm's exact name must be shown, and each member or partner must sign and have his name printed or typed below his signature.

The signature of each and every party to this instrument, except corporation officials, must be witnessed by at least one disinterested person.

Attest James Elliott
(Print or type Name and Title) Secretary

Roy L. Houck Sons' Corporation
(Corporate name)

By [signature] (seal)
President (Print or type Name and Title)

Attest [signature]
(Print or type Name and Title) Secretary

Beaver State Sand & Gravel, Inc.
(Corporate name)

By [signature] (seal)
President (Print or type Name and Title)

Attest [signature]
(Print or type Name and Title) Secretary

Beaver State Ready-Mix
(Corporate name)

By [signature] (seal)
President (Print or type Name and Title)

Attest James Elliott
(Print or type Name and Title) Secretary

Fabricators Incorporated
(Corporate name)

By [signature] (seal)
President (Print or type Name and Title)

Attest
(Print or type Name and Title)

(Corporate name)

By (seal)
(Print or type Name and Title)

(OVER)

(If Indemnitor an individual, sign below)

Witness' signature _____ (L.S.)
(Print or type name) Alma Riedell

(Individually) Ron L. Houck, Jr. (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name) Alma Riedell

(Individually) Carlos T. Houck (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name) Alma Riedell

(Individually) James E. Houck (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name)

(Individually) (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name)

(Individually) (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name)

(Individually) (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name)

(Individually) (Print or type name)

Witness' signature _____ (L.S.)
(Print or type name)

(Individually) (Print or type name)

(If Indemnitor a partnership, sign below)

_____
(name of partnership)

Witness' signature _____
(Print or type name)

Partner's signature _____ (L.S.)
(Print or type name)

Witness' signature _____
(Print or type name)

Partner's signature _____ (L.S.)
(Print or type name)

RECEIVED
JAN 8 - 1970

7289

Meeting 4:15 p.m. Tuesday, Dec 30, 1969 in the office of Floyd Query, Commission Secretary. Present:

E-181 (23)

7247

Floyd Query, Comm. Secty.
George Rohde, Chief Counsel
L I Lindas, Staff Attorney
Al Johansen, Staff Attorney
C. Head, Ass't Comm. Secty.

Met with a Mr. Buener, representing Aetna Life & Casualty Co, who had delivered the first of three letters requesting the Highway Division make no further payments to Roy L Houck Sons, Corporation, their principle, on contract 7215 because of the failure of the Houck Corp. to pay labor and material bills incurred in connection with their performance of the foregoing contract.

Mr. Buener advised that letters pertaining to two other contracts involving the Houck Corporation would be forthcoming in the immediate future.

Mr. Buener stated that the Houck Corporation was cross paying bills--in other words using the money earned on one contract to pay bills due on one of the other contracts.

Buener stated that he had been in conference with the Houck Organization and were trying to help them out of a bad situation, but were getting no co-operation from the Houck's

He stated that there would be a representative of the Aetna co from their home office in Salem sometime next week, at which time another effort would be made with the Houck's to resolve the problem they have with them.

He further advised us that when the head office representative was in Salem, the company would furnish us with proper indemnification assurances to hold us harmless for withholding payment to the Houck's as requested by them.

Mr. Rohde stated, during the conference with Mr. Buener, that he had talked to Roy Houck today and Mr. Houck had advised him that he was not going to use the progress payment of approximately $140,000 due on contract 7215 to pay bills due on this contract.

Lindas

L I Lindas
Staff Attorney

NOTED
G. E. ROHDE

RECEIVED
DEC 5 - 1969
FOR FILE
E 111(23)
NOTED
7289

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

December 29, 1969

To: MEMORANDUM TO THE FILE:

SUBJECT: Houck Bros. Contracts 7185
7215
7289

A telephone call was received at 8:15 this morning from Aetna Surety Co. representative Mr. Wm. George. Mr. Query was contacted and also was connected in the threeway conversation.

This call was the result of my efforts on Friday, December 26, to reach the Aetna representative who had contacted Mr. Cecil Head by phone on December 23 and placed a hold on further delivery of partial payment checks on Houck Contracts with the Highway Division. On December 24 Mr. Jim Houck had come to the office of Mr. Klaboe to demand delivery of a check for some $134,000. At that time the undersigned was called to the conference in Mr. Klaboe's office.

It was my advice that the Highway Division, having been placed "on notice" by the surety to withhold payment, would jeopardize its rights against the surety under the bond if it failed to recognize the surety's claim even though received orally. It was stated that we should have written confirmation and it was my understanding such would be received forthwith.

On Friday, December 26, I received a call at home from Mr. Roy Houck stating that the holding of the check by the State would be seriously embarrassing since they had written sizable checks on the strength of its receipt. I reiterated the position previously taken. Because of Mr. Houck's statements I came to this office to see if the written confirmation from the surety company had been received. It had not, so an attempt was made to reach the Aetna representative in Portland by phone. Their office was closed with an "answering service" taking phone calls. After some insistence I was able to reach a Mr. Huffman.

The latter individual was not personally handling the Houck matter, but he did say he was aware that the Surety was considering the taking over of the Houck contracts and that there had been a conference between the Surety's auditor, counsel and claims man with Houck and the telephone call to Mr. Head was a result of the conference. Mr. Huffman promised he would have Mr. George call this morning.

Mr. George advised that Houcks were having temporary limited financial problems and that the surety would be assisting in these financial problems to get the Houck work completed. In line with this they wanted

REFERRED TO
Porter
BY ASST. STATE HWY. ENGR.

ORIGINAL SIGNED BY
F. B. KLABOE

the checks sent to Houck through the Aetna's office so they could have the funds properly applied.

To this end Mr. George had requested the Houcks to sign a letter to the Highway Division as to the handling of payments. He apparently has had more recent conversations with Mr. Houck, or Mr. Burda, and is to have another conference with them this morning and expects to have the matter straightened out.

If the voluntary handling by the contractor cannot be arranged, Aetna evidently will use its pre-existing assignment to accomplish its purpose.

G. E. ROHDE
Chief Counsel

GER:hg

cc Mr. Fred Klaboe
Mr. Floyd Query

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DEC 29 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JAN 29 1970
FOR FILING

E-181(23)
7289

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
December 23, 1969

SUBJECT: Payments for Roy L. Houck Sons' Corp.

To:

Floyd Query
Secretary

BUILDING

At 4:20 p.m. today, I received a telephone call from a Mr. Don Clark representing The Aetna Casualty Company.

Mr. Clark stated that he was calling me from a telephone booth here in Salem and had been meeting with the Roy L. Houck Sons' Corporation. Mr. Clark requests that all future checks (retainages and estimates) on all Aetna bonded jobs in which Houck is a prime contractor should be mailed to their office at 1201 S.W. 12th Street, Portland, Oregon. He said that his telephone call will be confirmed by letter within 24 hours.

C. W. Head

C. W. Head, Assistant Secretary

CWH:sj

#7185
#7215
#7289

NOTED
FILED OUT

Form E-20-61

RECEIVED
SEP 24 1969
OFFICE OF
STATE HIGHWAY ENGINEER

STATE COPY

APPROVED EFFECTIVE 9/15/69
Contingent upon modification of project agreement if additional funds are required.
By [signature] Engineer
15 SEP 1969
U.S. BUREAU OF PUBLIC ROADS

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Title

Date Sept. 9, XXXX, 1969

Project Name Saddle Mtn.Jct.-Little N. Fk. Nehalem River Sec.

Highway Sunset

Contract No. 7289

County Clatsop

Prefix 4-1004

Contractor Roy L. Houck Sons' Corp.

F. A. Project No. F-181 (23)

Address P.O. Box 671, Salem, Oregon 97308

Order No. 5

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Furnish materials and paint traffic stripes as required.

Furnish materials and apply plastic traffic stripes as required.

Location by station numbers:

Throughout Project.

NOTED
F. B. KLABOE

Estimate of quantities and cost:

Lump Sum Estimate $ 500.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

XXX Stipulated in Special Provisions.
Contractor to do work as required for traffic safety and convenience.
Work has not commenced.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$1,449,116.43	
Present estimate of project cost, including $ 500.00 for work under this order	$1,449,116.43	
Expected under-run / over-run amount	$ 0	
Expected under-run / over-run per cent	0	

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer or Construction Office Engineer

9-24-69

F-181(23)

STATE COPY

RECEIVED
SEP 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

APPROVED EFFECTIVE DATE
Contingent upon modification of project agreement if additional funds are required.
By
Dist. Engineer
Date 19 SEP 1969
U. S. BUREAU OF PUBLIC ROADS

Form E-200—52

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Project Name Saddle Mtn. Jct.-Little N.Fk. Nehalem River

Date Sept. 9, 19 69

Highway Sunset

Contract No. 7289

County Clatsop

Prefix 4-1004

Contractor Roy L. Houck Sons' Corp.

F. A. Project No. F-181 (23)

Address P.O. Box 671, Salem, Oregon 97308

Order No. 4

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Permanent Signing, including salvage & reinstall present signs plus furnish and install new signing as required.

Location by station numbers:

Throughout Project

Estimate of quantities and cost:

Lump Sum Estimate $ 1,200.00

NOTED
F. B. KLABOE

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

This work will be done as required during work on project.
A final permanent sign layout to be furnished by the Division Traffic Engineer.
Funds provided in the Project Authorization.
Work has not commenced.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$1,449,116.43	
Present estimate of project cost, including $1,200.00 for work under this order	$1,449,116.43	
Expected under-run / over-run amount	$ 0	
Expected under-run / over-run per cent	0	

Submitted by: Resident Engineer

Approval Recommended: for Construction Engineer or Bridge Engineer

Approval Recommended:

Approved: State Highway Engineer

RECEIVED
SEP 5 - 1969

F-181(23)
7149

September 4, 1969

Roy L. Houck Sons' Corporation
P. O. Box 671
Salem, Oregon 97308

Gentlemen:

We enclose for your files a fully executed copy of the following described contract which was awarded to you by the State Highway Commission:

Contract No. 7289 for grading, paving, and structure on the Saddle Mtn. Jct.-Little N. Fk. Nehalem River Section of the Sunset Highway in Clatsop County.

A copy of this contract is also being sent to the surety on your performance bond.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

Enclosure

cc The Aetna Casualty & Surety Company
Updegraff Insurance, Inc.

bc D. J. Barbee
F. D. Morgan
I. D. Merchant
R. D. Asburry
Vernon Shull

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SEP 5 - 1969
FORM E-30-X (12-67)
FOR FILE

E-141(23)
7289

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 2, 1969

To: Vern Shull
RESIDENT ENGINEER

SUBJECT: Travel Surface Condition for Next Winter
Saddle Mtn. Jct.-Little N. Fork
Sunset Highway

F. B. Klaboe has through John Bond expressed a concern that the travel surface be protected at this time for optimum protection during next winter. I explained to Bond that this subject was thoroughly discussed at the preconstruction meeting and that the contractor's plans very adequately takes the matter into consideration.

Basically, the contractor plans to leave the existing surface undisturbed for next winter except that he will have an incidental number of crossings for hauling and culvert installations. The latter will be repaved and if damage is done during the hauling or other operations, they will also have to be patched.

Please see that this is done.

The only exception to the utilization of the existing surface next winter is that a paved detour will be necessary for the stage construction of the Necanicum River structure. The detour curvature shouldn't need to be any sharper than on the existing alignment. This stage construction and detour was in effect included in our planning.

R. D. Asburry
DIVISION ENGINEER

By Gerald W. Wimer
Gerald W. Wimer
ASST. DIVISION ENGINEER

CWW/cg

cc: F. B. Klaboe
John Bond

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SEP 4 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Form R-206—6M

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SEP 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

F-181(23)
7289

STATE COPY

G-1

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

APPROVED
Contingent upon modification of project agreement if additional funds are required.
Date SEP 1969
Title Dist. Engr.
U.S. Bureau of Public Roads

Project Name Saddle Mtn. Jct.-Little N. Fk. Nehalem River Sect. Date August 28, 1969 19

Highway Sunset Contract No. 7289

County Clatsop Prefix 4-1004

Contractor Roy L. Houck Sons' Corporation F. A. Project No. F-181 (23)

Address P. O. Box 671, Salem, Oregon 97308 Order No. 2

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Place gravel in streambed (channel change) and construct Groins as specified by State Fish Commission Representative. Gravel placement as specified in plans.

NOTED
F. B. KLABOE

Location by station numbers:

Lt. of 66-71

Estimate of quantities and cost:

Material (gravel & rocks) ----------	$ 400.00
Equipment Rental ----------	400.00
Labor ----------	200.00
TOTAL	$1,000.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Specified in Special Provisions
Funds provided in Project Authorization
Work has not commenced but will soon.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$1,449,116.43	
Present estimate of project cost, including $1,000.00 for work under this order	$1,449,116.43	
Expected under-run / over-run amount	$ 0	
Expected under-run / over-run per cent	0	

Space to right of this line is for use of Salem Office

Submitted by: /s/ Vernon E. Shull
Resident Engineer

Approval Recommended: /s/ John A. Bond
for Construction Engineer

Approval Recommended: /s/ R. D. Asburry
Division Engineer

Approved: /s/ F. D. Morgan

9-15-69

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SEP 22 1969
SEP 15 1969
OFFICE OF
STATE HIGHWAY ENGINEER
F-181(23)

STATE COPY

G-11

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Contingent upon [illegible] project agreement [illegible] funds [illegible]

Date SEP 1969

U.S. Bureau of Public Roads

Project Name Saddle Mtn. Jct.-Little N. Fk. Nehalem River Sec. Date August 28, 1969

Highway Sunset Contract No. 7289

County Clatsop Prefix 4-1004

Contractor Roy L. Houck Sons' Corporation F. A. Project No. F-181 (23)

Address P. O. Box 671, Salem, Oregon 97308 Order No. 3

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Slide Removal, Anticipated.

Location by station numbers:

Throughout project.

Estimate of quantities and cost:

Lump Sum Estimate $25,000.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Specified in Special Provisions
Funds provided in Project Authorization
Work has not commenced.

NOTED
F. B. KLABOE

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$1,449,116.43
Present estimate of project cost, including $25,000.00 for work under this order	$1,449,116.43
Expected under-run / over-run amount	$ 0
Expected under-run / over-run per cent	0

Space to right of this line is for use of Salem Office

Submitted by: /s/ Vernon E. Shull, Resident Engineer

Approval Recommended: /s/ John A. Bond for Construction Engineer

Approval Recommended: /s/ R. D. Asburry, Division Engineer

Approved: /s/ F. D. Morgan

9-15-69

RECEIVED
AUG 29 1969
FOR FILING
F-181 (23)
7289

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

August 27, 1969

NOTED
F. B. KLABOE

To: MEMO TO THE FILES

SUBJECT: Pre-Job Conference
Saddle Mtn. Jct.-Little N. Fork
Nehalem River Section
Sunset Highway
Contract No. 7289

On August 21, 1969 a pre-job conference relating to the subject contract was held in Resident Engineer Shull's office in Seaside with the following personnel in attendance:

Ed Shuholm	Pacific Northwest Bell
George Schmader	Pacific Northwest Bell
Dick Tuttle	Roy L. Houck Sons
Don Lemen	Roy L. Houck Sons
Jim Lambie	Roy L. Houck Sons
V. E. Shull	OSHD
Chuck Elroy	OSHD
F. W. Sugnet	OSHD
John Schultz	BPR
John H. Walker	OSHD
Charley Hickman	WOE Co-op
Gerald Wimer	OSHD

Jim Lambie representing Roy L. Houck Sons' Corp. issued the attached data which describes their personnel project assignments and also other additional information sets forth in brief their schedule of operations. We were informed that contract work this fall would consist of the clearing and as much of the grading work as the weather would permit. The balance of the work is to be done next year.

From the information dispersed at this meeting, there did not appear to be any major utility problems. Logging operations and cleanup was not 100percent complete, but this also did not appear to pose any problem to the contractor in performance of his work.

John H. Walker
Field Construction Engineer

JHW:fw
Attach.
cc: F. B. Klaboe
R. D. Asburry
V. E. Shull

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AUG 28 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
NOV 1 - 1969
FOR FILING

F-181(23)
7289

Bid July 31

AGENDA
SEP 2 0 1969
3 M

August 25, 1969

Roy L. Houck Sons' Corporation
P. O. Box 671
Salem, Oregon 97308

Gentlemen:

The State Highway Commission on August 8, 1969, accepted your proposal for grading, paving and structure on the Saddle Mountain Junction-Little North Fork Nehalem River Section of the Sunset Highway in Clatsop County for the sum of $1,240,903.50 and referred it to the State Highway Engineer with authority to award the contract as soon as necessary right-of-way is acquired and approval of the Bureau of Public Roads is received.

These conditions have been satisfied and the State Highway Engineer on August 21, 1969, awarded you the project, which has been assigned Contract No. 7289.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar working count on this contract will begin September 8, 1969.

Very truly yours,

Floyd Omary, Secretary
OREGON STATE HIGHWAY COMMISSION

By
C. W. Bond, Assistant Secretary

cr
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Gaibel (SAIF)
R. D. Asburry
Vernon Shull

RECEIVED
AUG 25 1969

F-1X1(23)
1289

August 22, 1969

Mr. R. H. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon 97301

Dear Sir:

Confirmation of your tentative concurrence as of August 21, 1969, is requested in the award of contract for the Saddle Mtn. Jct.-Little N. Fk., Nehalem River Section, Project No. F-1X1(23).

The contractor receiving the award is Ray L. Houck Sons' Comp., in the amount of $1,240,903.50, with Contract No. 7230 assigned. This bid was received on July 31, 1969 and awarded on August 21, 1969.

All right of way or rights of entry have been acquired.

The low bidder completed the Anti-Collusion Statement included in our proposal, as required by PPM 21-6.1, and it will be retained in a permanent project file.

All necessary arrangements have been made for all utility work not included as part of the construction contract to be undertaken and completed without conflicting or delaying the State contractor's operations.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Z. M. Young
Program and Planning Engineer

Bureau of Public Roads Endorsement:

Date
I concur in the award.

R. H. Simpson
Division Engineer

ZMY:ml

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AUG 11 1969
FOR FILING

F. B. Klaboe

14

F-181(23)
7289

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

August 4, 1969

To: MEMO TO THE FILE

SUBJECT: Saddle Mtn. Jct.-
Little N. F.
Nehalem River
Section
Sunset Highway
Clatsop County

Mr. Bill Hoyt of KGW TV called this office today and requested information in regard to the property acquisition from Crown Zellerbach and others for the above property.

I informed Mr. Hoyt that Crown Zellerbach and most of the other land owners had accepted our appraisal and agreed to sell the property be means of an option, and that as of this date it appeared that only two properties might go through the entire condemnation procedure. Mr. Hoyt appeared satisfied with this data.

ORIGINAL SIGNED
JOHN R. OAKES
John R. Oakes
Assistant Right of Way Engineer

JRO:GZ
cc F. B. Klaboe
Victor Wolfe
G. E. Rohde
John J. Earley

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AUG 5 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUL 17 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

F-181(23)
7289

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

July 14, 1969

Mr. W. H. Christy
Timber Buyer
Crown Zellerbach Corporation
Public Service Building
Portland, Oregon 97204

File 43091
Saddle Mtn. Jct.-
Little N. Fork Nehalem
River Section
Sunset Highway
Clatsop County

Dear Mr. Christy:

Upon receipt of your letter of July 10, 1969, requesting extension until August 20, 1969, to complete the removal of the timber, we discussed the problem with our administration and with the Bureau of Public Roads.

We had made provision for additional time for your benefit and were about to answer this letter when it was reported that the strike had been settled. For this reason I have been instructed to request that you complete the project by August 6, 1969, instead of August 20, 1969, as you request. If for any reason this proves to be impossible, please let us know by August 1, 1969, for further consideration.

RECEIVED
JUL 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Very truly yours,

G. E. ROHDE
Chief Counsel

John R. Oakes
Assistant Right of Way Engineer

JRO:DH

cc R. E. Simpson
F. B. Klaboe
V. E. Skoog
D. J. Barbee
G. E. Rohde
R. D. Asburry
R. J. Henry
T. W. Litchfield
G. W. Wimer
D. Ridings
W. H. Haskin
F. C. Lowe
M. R. Mitchell

CROWN ZELLERBACH CORPORATION

PUBLIC SERVICE BUILDING

PORTLAND, OREGON 97204

RECEIVED
JUL 11 1969

July 10, 1969

Mr. Dave Moehring
Right of Way Department
Oregon State Highway Commission
Highway Building
Salem, Oregon

NOTED
F. B. KLABOE

Dear Mr. Moehring:

Refer: Sunset Highway Widening
Saddle Mtn. Area

Due to conditions beyond our control, we will not be able to complete removal of the timber on the right of way by July 30, 1969, as originally planned.

We, therefore, request an extension of time for this operation to include August 20, 1969.

Very truly yours,

CROWN ZELLERBACH CORPORATION

W. H. Christy
Timber Buyer

CZCorp-Portland
WHC/hh

cc: Mr. Virgil Wilson, Salem
Mr. C.W.Richen, PO
Mr. V.Y.Davis, Clatsop
Mr. W.W.Locke, PO

RECEIVED
JUL 11 1969
RIGHT OF WAY

RECEIVED
JUL 11 1969
OFFICE OF
STATE HIGHWAY ENGINEER

JUL 16 1969

7-10-69

FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

FOR FILING

F-181(23)

LETTER OF APPROVAL AND/OR AUTHORIZATION

TO: MR. FORREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

7289

Klaboe

PROJECT: F 181(23)

SECTION: SADDLE MT. JUNCTION -- LITTLE NORTH FORK

WORK : GRADING, PAVING & STRUCTUR

COUNTY : CLATSOP

FROM: R. E. SIMPSON, DIVISION ENGINEER SALEM, OREGON	DATE PS&E APPROVED JUNE 27, 1969	DATE AUTHORIZED JUNE 27, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- ○ CONSTRUCTION — ADVERTISE FOR BIDS.
- ○ RIGHT OF WAY.
- ○ OTHER (SPECIFY).
- ○ UTILITY ADJUSTMENT.
- ○ RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

PS&E DOCUMENTS WERE APPROVED JUNE 27, 1969 FOR THE SUBJECT PROJECT.

A SIGNED COPY OF THE TITLE SHEET IS RETURNED HEREWITH.

INITIATED
F.B. KLABOE

Young
w/Enc
7-11-69

OFFICE USE

RECEIVED
JUL 11 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE JULY 10, 1969	SIGNATURE OF APPROVING OFFICIAL for R. E. SIMPSON	TITLE DIVISION ENGINEER

RECEIVED
JUL 7 - 1969
FOR FILING
F-181(23)
7289

July 3, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon

Saddle Mtn. Jct. -Little N. Fork
River Section
Project No. F-181(23)

Dear Sir:

Subsequent to our P. S. & E. request letter of June 19, 1969, we have added to the project estimate an anticipated construction cost requested by the Game Commission.

In compliance with IM 21-6-68, the Game Commission re-examined the plans and requested gravel and grains be placed in the streams to restore cover: with an estimated cost of $1,000.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Program and Planning Engineer

DAR:ia

RECEIVED
JUL 8 - 1969
FOR FILING

F-181(23)
#289

July 3, 1969

7629

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Box 300
Salem, Oregon 97308

Re: Necanicum River Bridge
Saddle Mountain Road-
Elsie Road Section
Sunset Highway

Dear Sir:

We have reviewed the comments in your letter dated June 25 on the subject project.

Attached are two copies of the foundation report calling for steel piling at each bent. Our most recent estimate is $103,200 for the structure only, which includes a 12½ percent allowance for engineering and contingencies.

As per your recommendation, we have increased the reinforcing in the curbs. The plans have been revised to call for No. 4 bars at 7-inch centers instead of 15-inch centers, and also to show a slope of the face of the curb as requested. In order to increase the safety of the rail, we have also revised the plans to call for a double thickness of the flex-beam across the structure. This is consistent with the guardrail details leading up to all corners of the structure.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

Attachments (2)

bc Forrest Cooper
R. L. Porter
Victor D. Wolfe
Ivan Marchant

LLW:cs ja

Salem, Oregon
July 1, 1969

Foundation Recommendation
Necanicum River Bridge
Saddle Mt. Jct.-Little North
Fork Nehalem River Section
Sunset Highway
Clatsop County
Bridge No. 1812A

Ivan D. Merchant
Bridge Engineer

O F F I C E

Location

This structure will replace an existing structure on the Sunset Highway near the Saddle Mt. Junction, approximately 14 miles east of Seaside in Clatsop County, in the NE ¼ of Section 24, T. 5 N., R. 9 W., W.M.

Foundation Material

Fills for the existing structure, to be incorporated in the new construction, are composed of soft clay or decomposed shale 15 to 20 feet in depth. Widening of these fills on the northerly side of the roadway will probably be accomplished with similar locally obtained material.

Underlying these fills, at streambed elevation, is a layer of river deposed gravels and broken rock, varying in thickness from 3 to 10 feet, which in turn overlies hard grayish shale. The upper surface of the shale slopes upward to the east, being near Elevation 443 near Bent 1 and Elev. 449 at Bent 2.

Foundation Recommendation

Point bearing 10BP42 steel 'H' piles, driven to 50 tons resistance each, are recommended for support of bents for this structure, the piles driven through the fills and gravel layer and obtaining bearing on the hard shale below.

Expected pile lengths and elevations are as follows:

	Bent Elev.	Av. Tip Elev.	Max. Lgth.
Bent 1	463	440	28'
Bent 2	469	447	28'

Slope Protection

Preliminary Studies indicate a streamflow at this location of 1000 c.f.s. at a velocity of 11-12 f.p.s. during periods of high water. Some riprap is in use at the existing structure, however there is no indication of extreme erosion problems.

With the streamflow velocities as noted above, riprap conforming to Article 415-2.1(b)(2), "Dry riprap, Class 2 for slopes", is recommended for protection of streambanks and fill slopes, keyed into the streambed at Elevation 450 and extending up to Elevation 461. Riprap should be laid to a depth of not less than 3 feet.

Jack Davis
Asst. Found. Engineer

JD:smd

LLW

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: June 26, 1969

In reply refer to: 08-35.6

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
Attention: Mr. I. D. Merchant

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project F-181(23)
Necanicum River Bridge
Preliminary Bridge Plans

Preliminary plans for the Necanicum River Bridge submitted by Mr. Merchant's June 18, 1969 letter have been reviewed and are approved.

While I recognize the nature of this project required some haste in the plan preparation, I would prefer that the submission includes foundation data and bridge costs.

The reinforcement from the deck into the curbs appears insufficient to withstand the load that the rail must carry and should be increased. I also suggest that the front face of the curb be sloped.

Merchant
RD

RECEIVED
BRIDGE DIVISION
AM PM
7,8,9,10,11,12,1,2,3,4,5,6

NOTED
TOM EDWARDS

RECEIVED
JUN 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JUL 8 - 1969
FOR FILING
RECEIVED
JUL 8 - 1969
Form 734-1481 (2-63)
7289

July 3, 1969

Oregon State Highway Commission

Gentlemen:

You have tentatively approved on Federal-Aid Program XI the Saddle Mountain Junction-Little North Fork Nehalem River Section on the Sunset Highway in Clatsop County.

Hearings have been offered and have been waived. We have received design approval from the Bureau of Public Roads and we are ready to proceed with construction. The estimated cost of construction is $1,400,000, and the estimated cost of right-of-way is $100,000, for a total estimated cost of $1,500,000.

I recommend this project for the July letting and request approval of financing.

This matter will be on the agenda for your consideration at the July 8 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
L. H. Young
V. E. Skoog
D. J. Barbee
D. H. Moehring
R. D. Asburry

BLG:ia sr

RECEIVED
JUL 1 - 1969
FOR FILING

E-181(23)
7289

Salem, Oregon
June 30, 1969

Construction Signing

Mr. L. E. George
Assistant Traffic Engineer

Saddle Mtn — Little N. Fork

I attach approved the typical signing installation plans to be used in detour locations.

With respect to policy, I must advise that the old policy of relying on contractor and Resident Engineer judgment generally was not completely satisfactory. We will, therefore, proceed to show on the contract plans all possible signing.

Attachment

Tom Edwards
Assistant State Highway Engineer

TE:ja

cc Forrest Cooper
R. L. Porter
Victor D. Wolfe

(1) Val
(2) File.

FORM E-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 20, 1969

To:
L. E. George
Assistant Traffic Engineer
O F F I C E

SUBJECT: Construction Signing
Saddle Mountain Junction-Little North
Fork Nehalem River
Sunset Highway

Attached is a plan showing proposed construction signing for the above project. Also attached is a copy of Jay Barbee's May 9 letter concerning the subject of signing for the protection of traffic on construction projects.

In some of our contacts with the Construction Division, we have attempted to get them to use our standard detail sheet in calling for construction signing. However, each project is a little bit different and a little bit of judgement has to be used in applying the standard detail sheets. It appears that the contractors making their bids become confused and that their judgement is not the same as the Resident Engineer's. For this reason, it appears that we are heading for a signing plan for almost each and every construction contract.

This is a great deal of work and I would like to get out of it if I could. A high level decision would be necessary since this concerns contractor relations and possible legal responsibility.

6/24/69
Not yet
do each one
see how the
workload
is. LEG

Val Johnson by ji
Val Johnson
Traffic Control Engineer

VPJ:ji
Attachments

NOTED
L.E. GEORGE

6-27-69

DEFERRED
JUL 1 - 1969

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

FOR FILING
F-181(23)

LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT:	F-181(23)
SECTION:	SADDLE MT. JUNCTION LITTLE NORTH FORK RIVER
WORK :	GRADING - PAVING AND STRUCTURE
COUNTY :	CLATSOP

7289

TO: MR. FORREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

Klabon

FROM:	DATE PS&E APPROVED	DATE AUTHORIZED
R. E. SIMPSON, DIVISION ENGINEER SALEM, OREGON	JUNE 27, 1969	JUNE 27, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- (X) CONSTRUCTION - ADVERTISE FOR BIDS.
- ( ) RIGHT OF WAY.
- (X) OTHER (SPECIFY).
  AFTER AWARD CONCURRANCE YOU ARE AUTHORIZED TO PROCEED WITH CONTRACTOR'S FLAGGING SHOWN IN YOUR ESTIMATE IN AMOUNT OF $15,000.00
- ( ) UTILITY ADJUSTMENT.
- ( ) RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. YOUNG'S JUNE 19, 1969 REQUEST AND CERTIFYING STATEMENTS ARE ACCEPTED.

PS&E DOCUMENTS FOR THE SUBJECT PROJECT HAVE BEEN REVIEWED AND ARE HEREBY APPROVED.

OUR AUTHORIZATION IS CONDITIONED ON YOUR OBTAINING ALL RIGHTS OF ENTRY PRIOR TO OUR CONCURRANCE IN AWARD.

6-30-69

OFFICE USE

Young

RECEIVED
JUN 30 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
6-27-69	R. E. SIMPSON	DIVISION ENGINEER

RECEIVED
JUN 30 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

F-181 (23)
7289

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

June 27, 1969

Crown Zellerbach Corporation
1100 Public Service Building
Portland, Oregon 97204

Attention: Mr. W. A. Christy

Gentlemen:

Our Resident Engineer Loren Weber has been in contact with Bob Moser of your organization relative to our utilizing your property adjacent to our Hjoteland Quarry in the Southwest quarter of the Southwest quarter of Section 16 and in the Southeast quarter of the Southeast quarter of Section 17, Township 5 North, Range 9 West, Willamette Meridian, Clatsop County, as a material source. Agreement dated January 19, 1962, between our organizations establishes this use.

We propose to allow our contractor on the Saddle Mountain Junction-Little North Fork Nehalem River Section of the Sunset Highway to utilize this source subject to the following items:

1. A "planned use development" is to be followed.
2. Log portion of trees including Alders shall be cold-decked on State property for later removal by your organization with stipulation that an alternate location is agreeable to us if our contractor first secures your approval.
3. Overburden shall be dozed easterly over the ends of "planned use development" benches.
4. Payment equivalent to $0.03 per cubic yard measured in original position shall be withheld from the contractors estimates and this payment shall be forwarded to your organization.

We will follow up with copies of our plans and specifications as soon as they are finalized, but in the interim your concurrence with the data outlined above is requested so we might proceed to the bidding stage July 31. Advertisement and specifications need to be finalized nearly a month in advance. Please excuse the lateness of this request.

Yours very truly,

FORREST COOPER
State Highway Engineer

By ORIGINAL SIGNED BY D. J. BARBEE
D. J. BARBEE
Design Engineer

RECEIVED
JUN 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

cc: F. B. Klaboe
R. D. Asburry

FORM PR-48
(REV. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: Oregon

DATE: 6/17/69

BY (Signature): Mr. Young's June 11, 1969 letter

TITLE:

CLASS OF FEDERAL FUNDS: ☐ FAI ☒ FAP ☐ FAU ☐ FAS ☐ OTHERS

STAGE 1 * ITEM NOS. ____ THRU ____		STAGE 2 ITEM NOS. 481 THRU ____			OTHER IDENTIFICATION AND/OR REMARKS (State)
ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS	Location / Work
481	F-181(23)	2.46	$1,650,000	$1,048,400	Saddle Mtn. Jct. - Little N. Fk. Nehalem River Sec. - Sunset Hwy. — Grading & structure

6/17/69

REMARKS (Division)

You are authorized to proceed with the necessary preparatory work for Utility adjustments.

RECEIVED
JUN 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DEPARTMENT
JUN 20 1969
PUBLIC ROADS

F-181(23)
7210

Johnny Phillips cont 6-19-69

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE
		June 17, 1969	R. E. Simpson, Division Engineer

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-954

RECEIVED
JUN 13 1969
FOR FILING

F-181(23)
7289

June 11, 1969

Mr. R. H. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage St. N.E.
Salem, Oregon 97301

Dear Sir:

We are submitting program data for one Primary Project, Item 481, F-181(23), Saddle Mtn. Junction-Little N. Fork Nehalem River Section, which we desire to have included in the Federal-Aid Primary Highway Program.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Program and Planning Engineer

LHC:dg

Enclosure

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

FEDERAL-AID PRO

(PPM 21-

CARD 2	REPORT NUMBER (19)–(20)	PROJECT LOCATION *(45 typewriter spaces)* 21–65			ADT	PRESENT	FUTURE (66)–(70)	YEAR (71)–(72)					
	1	US 26 0.4 mi. E. of Necanicum Jct. E 2.46 mi.				2,300	4,400	89					
CARD 3	CHARACTER OF PROPOSED WORK *(35 typewriter spaces)* 28–62		NATL. FOREST (63)–(65)	FH ROUTE NO. (66)–(68)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)–(72)	EMERG. YR. (73)–(74)	PL. AUTH'Y (75)				
	Gr. Dr. High Type Pave. 1 Br.												
CARD 4	CLASS OF FEDERAL FUNDS						COUNTY NAME						
	Primary						Clatsop						
	NAME OF URBAN AREA 17–31						ROUTE NO. P	FEDERAL-AID					

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE (42–46)	STEP	TERMINI *(Full description)*	MILES (54)–(58)	ESTIMATED PROJECT COST: TOTAL ESTIMATED COST (59)–(66)	ESTIMATED PROJECT COST: FEDERAL FUNDS (67)–(70)
1	(14-15)	(16)	41	42	43–46	53				
5					PE		US 26 0.4 mi. E. of Necanicum Jct. E. 2.46 mi. (Saddle Mtn. Jct.– Little N. Fk. Nehalem R. Section)			
5					ROW					
5					CONST (CODE)			2.46	1,650,000	1,048,400
							PROJECT TOTALS	2.46	1,650,000	1,048,400

CARD 1	CODE 1	PREPARED BY
1	14	PROGRAM APPROVAL DATES

(16) (23) (24) (33)

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
	ADT	2,300	4,400 (66)	89 (70)(71)(72)	8	Oregon	35 (2)(3)	012 (4)(9)	481 (14)(18)

(65)	IPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)(72)	EMERG. YR. (73)(74)	PL. AUTH YR (75)	PROJECT NUMBER: PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only: POST MI. (24)(26)	DESIG. 27
						F- (23)	181(23) (7)	13		

COUNTY NAME: Clatsop — CODE: 007 (11)(15)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO. P — FEDERAL-AID: 2 (32) — STATE: 47 (36)(37) — U.S.: 26 (41)

MILES (34)(35)	TOTAL ESTIMATED COST (38)(39)	FEDERAL FUNDS (56)(57)	STATE FUNDS (76)	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
					Gr. Dr. 2-12' lanes, 2-12' climbing lanes, 4' shoulders and 2' median. One pre-stressed conc. beam bridge, length 122' HC 58'.
					ROW-150' min. Access control-partial; Parking restrictions-none. Utility-adj. req. incl. prep work.
2.46	1,650,000	1,048,400	601,600		
2.46	1,650,000	1,048,400	601,600		

(16) (23)(24) (33)

REMARKS: Relocation assistance - none.

USCOMM DUSCOMM-DC 48908-P61

Saddle Mtn. Jct.-Little N. Fk. Nehalem R. Section

Project F-181(23)

Existing Facility:

Roadway - 20' to 24' bituminous surface with 2' rock or oiled shoulders.

Structures - One bridge over Necanicum River, H-15 FRTR, composite length 87 feet, HC 24' built in 1933.

Adjacent Sections:

West End - 20' bituminous surface with 2' shoulders

East End - 4-12' lanes, 2' median with 4' shoulders. Constructed by State in 1966.

Project Data:

Grade and drain, 2-12' travel lanes, 2-12' climbing lanes, 2' median, 4' paved shoulders. One prestressed beam concrete bridge, length 122', HC 58'.

System action, airports, water development, railroads - none involved.

Public hearing - Provisions of PPM 20-8 complied with under previous correspondence.

RECEIVED
JUN 3 - 1969

F-181(23)
7289

June 2, 1969

DAILY ASTORIAN, Astoria, Oregon 97103
COLUMBIA PRESS, Astoria, Oregon 97103
SEASIDE SIGNAL, Seaside, Oregon 97138

Attention: Classified Ads Department

Gentlemen:

Attached is the Oregon State Highway Commission's notice to interested parties in Clatsop County, Oregon, relative to State's proposal to acquire right-of-way for future construction on the Saddle Mountain Junction-Little North Fork Nehalem River Section of the Sunset Highway (US 26). The proposed routing is approximately as shown shaded on the map sent previously.

Please run this notice as a paid advertisement in your classified section under the heading "Legal Notices" on Thursday, June 5, 1969. Please submit your billing in triplicate to this office in the State Highway Building, Salem, Oregon, and attach one copy of an affidavit of publication for the date of publication.

It will be satisfactory to print the notice in one column. If any questions arise, I will be glad to advise you if you will telephone me at 364-2171, extension 1211, Salem; or you may call Mr. R. D. Asbury, Division Engineer in Salem, 364-2171, extension 1307.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

DHE:ma
Att.

cc: Bureau of Public Roads
Program & Planning Div. (2)
Accounting Div.
County-City Div.
Public Information
R. D. Asbury

bc: Forrest Cooper
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
D. J. Barbee
D. N. Moehring
R. H. Chase

NOTICE

In conformance with Policy and Procedure Memorandum 20-8, promulgated by the Federal Highway Administration, the Oregon State Highway Commission has received Bureau of Public Roads' approval of the combined route location and highway design for right-of-way acquisition and construction on the Saddle Mountain Junction-Little North Fork Nehalem River Section of the Sunset Highway (US 26) in Clatsop County, Oregon.

The location will generally follow the alignment of the existing facility with design consisting of four 12-foot travel lanes with the outside lanes for slow-moving vehicles, 2-foot median, and 4-foot shoulders, all high-type pavement.

The existing structure over the Necanicum River is to be widened or reconstructed to conform with the width of the roadway. The project will be a limited access facility with provisions for major road connections.

Maps and related data pertinent to the proposal are on file and available for review in the Highway Commission files, State Highway Building, Salem.

Floyd Quarry, Secretary
OREGON STATE HIGHWAY COMMISSION

# # #

[illegible]:ma
6/2/69
DAILY ASTORIAN, Astoria
COLUMBIA PRESS, Astoria
SEASIDE SIGNAL, Seaside

RECEIVED
MAY 28 1969
FISH
COMMISSION

STATE OF OREGON
1859

OFFICE OF THE DIRECTOR
307 STATE OFFICE BLDG. • 1400 S.W. 5th AVE. • PORTLAND, OREGON • 97201

TOM McCALL
GOVERNOR

COMMISSIONERS
EDW. G. HUFFSCHMIDT, Chairman
McKEE A. SMITH, Vice Chairman
JOSEPH I. EOFF, Member

ROBERT W. SCHONING
State Fisheries Director

F-181(2B)
7289

May 26, 1969

cc's sent 5-27-69
F.B. Klaboe
F.D. Morgan
L.H. Young
G.C. Wills
F.E. Terpin (3)
T.C. Roake (3)
A.E. Johnson (2)
L.W. Rulien (2)
R.D. Asburry (2)

Mr. Forrest Cooper
State Highway Engineer
Oregon State Highway Department
Highway Building
Salem, Oregon 97310

Attention Frank Hall

Larsen
Hall
A. Olson
Sample
Terpin
Svenson
Trost
Wills
Hackleman
Scott
R. Olson
Carstensen

RECEIVED
MAY 26 1969
DESIGN
DIVISION

Dear Mr. Cooper:

The following title project transmittal to us by your letter dated May 19 has been examined.

Fremont Bridge Section, Stadium Freeway
Hwy. Mult. Co.,

Nyberg Road Interchange Section, Pacific
Hwy., Wash. Co.,

Ward Drive - Silverton Road Section FAS 741,
Marion Co.

We anticipated no fishery conflicts with the above projects; thus they are approved.

The Necanicum Salt Jct. project has been referred to our field office for further investigations. Our reply to this section will be made in the near future.

Sincerely,

Burt Carnegie

BURT CARNEGIE
HYDRAULICS ENGINEER

cc Oregon Game Commission

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 26 1969
OFFICE OF
STATE HIGHWAY ENGINEER

MAY 28 1969

GAME COMMISSION

F-181(23)

OFFICE OF THE DIRECTOR

7289

P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
A. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

May 23, 1969

cc's sent 5-27-69

F.B. Klaboe/
F.D. Morgan
L.H. Young
G.C. Wills
F.E. Terpin (11)
T.C. Roake (11)
A.E. Johnson (4)
L.W. Rulien (6)
R.D. Asburry (8)
C.T. Keasey (2)
A.F. Parson (2)

State Highway Engineer
State Highway Department
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

We have reviewed the project plan title sheets sent with your letter of May 19, 1969.

The projects are all approved as there will be no conflict with wildlife resources. The approved projects are listed below.

1. Fremont Bridge Section
   Stadium Freeway, Multnomah County

2. Nyberg Road Interchange Section
   Pacific Highway, Washington County

3. Fountain Slide Section
   Columbia River Highway, Hood River County

4. Kittridge Avenue (Portland) Channelization Section
   Columbia River Highway, Multnomah County

5. Division Street-Hilda Street (Oregon City) Section
   Cascade Highway, Clackamas County

6. Columbia River Highway-Old Portland Road Section
   FAS 574 (Gable Road), Columbia County

7. Ward Drive-Silverton Road Section
   FAS 741 (Lancaster Drive), Marion County

8. Crater Lake Highway-South Fork Reese Creek Section
   FAS 15-101, Jackson County

9. Powder River (McDougal) Lane Section
FAS 506, Baker County

10. Murder Creek Section
Pacific Highway, Linn County

11. Saddle Mountain Junction-Little North Fork Nehalem River Section Sunset Highway, Clatsop County.

Regarding the final project listed, "Saddle Mountain Junction, Little North Fork Nehalem River Section," passage for fish should be maintained and precautions should be taken against siltation.

Very truly yours,

JOHN W. McKEAN
DIRECTOR

By R. O. Koski

R. O. Koski
Chief of Liberations

ROK:js

cc: Dir. OFC

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

UNITED STATES GOVERNMENT

Memorandum

RECEIVED
APR 15 1969

F-181(23)
7289

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: April 10, 1969

In reply refer to: 08-35-EC

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project F-181(-)
Saddle Mountain Junction-Little North Fork Nehalem River Section
Sunset Highway (US 26)
Opportunity for Public Hearing

Receipt of Mr. Young's April 7, 1969 letter certifying that the opportunity for a public hearing has been granted for the subject project is acknowledged. The supporting correspondence transmitted with the above mentioned letter indicates satisfactory compliance with Section 128 Title 23 USC and PPM 20-8 as it relates to public hearings except for the consideration of sound economic and environmental effects. It is understood that the consideration of these factors will be accomplished prior to your submitting a request for location and design approval under paragraph 10 of PPM 20-8.

4-15-69

By Asst. State Hwy. Engr

NOTED
B. KLABOE

RECEIVED
APR 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Please see me on this

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
FEB 26 1969
FOR FILING

F-181(23)
7289

30-1
1-28-69

February 5, 1969

Board of County Commissioners
Clatsop County
Courthouse
Astoria, Oregon 97103

Attention: Mary May
County Clerk

Gentlemen:

The State Highway Commission at its meeting on January 28, 1969, adopted a survey concerning improvement on the Saddle Mountain Junction-Little North Fork, Nehalem River Bridge Section of the Sunset Highway.

For your information, we have attached a sketch map showing the route of the new section and a copy of the Commission's "Survey Resolution No. 361" adopting the survey.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

ej

Attachment

RECEIVED
JAN 23 1969
FOR

F-181(23)
7289

January 22, 1969

Oregon State Highway Commission

Gentlemen:

The survey on the Saddle Mountain Junction-Little North Fork Nehalem River Section on the Sunset Highway in Clatsop County has been completed. This project, located about ten miles easterly of Cannon Beach Junction on the Sunset Highway, involves grading and paving to a four-lane section to provide for passing opportunity through the mountains. A public hearing is not required on this section. The length of the project is 2.56 miles and a map is attached for your information.

The estimated cost of construction is $1,630,000 and the estimated cost of right-of way is $100,000 for a total estimated cost of $1,730,000. The project is listed on Program XI.

We recommend your approval of this survey and request authorization for the purchase of the necessary right-of-way, with construction to take place when funds are available.

This matter will be on the agenda for your consideration at the January 28 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

Attachment

BG:bb lms
bc: Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
F. D. Morgan
D. J. Barbee
L. H. Young
C. H. Maison
D. H. Moehring
R. D. Asburry

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section Saddle Mt. Road - Little North Fork Nehalem River Highway Sunset (FAR 27) County Clatsop Prefix 4-1472

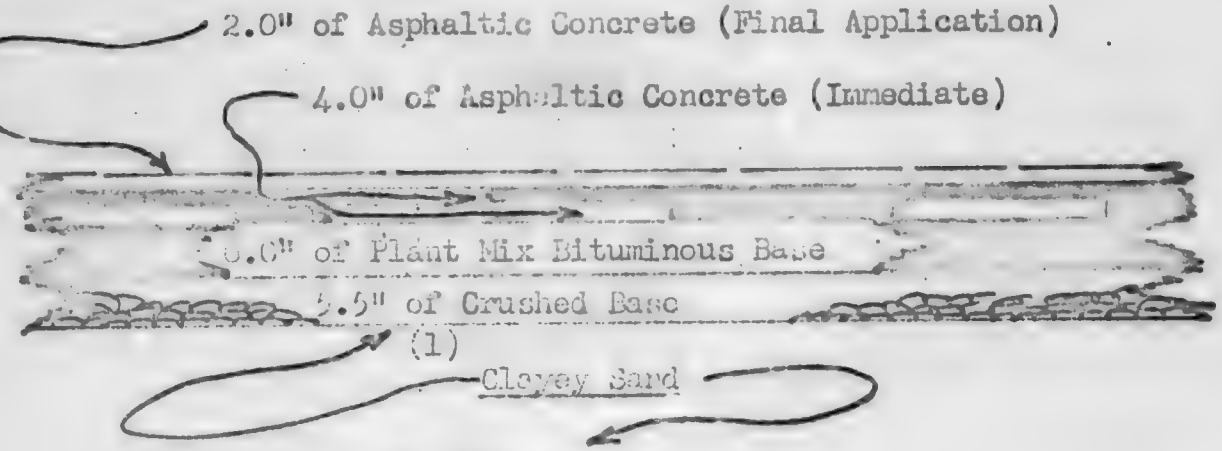
Res. Engr. _____ Approx. Length 2.5± Miles. Sta. 36± to Sta. 162 Date 12-12-68.

Mean Truck A.D.T. 437 Traffic Coefficient 9.2 18 kip s.a. per day 213.9.

Annual Precipitation 80"± Frost Penetration ----.

(1) NEW WORK

Typical Soil
54 LL
5 PI
89 %P 10
53 %P200
11 %Gravel
24 %C Sand
12 %F Sand
30 %Silt
23 %Clay
12 "R" Value


2.0" of Asphaltic Concrete (Final Application)
4.0" of Asphaltic Concrete (Immediate)
6.0" of Plant Mix Bituminous Base
5.5" of Crushed Base
(1)
Clayey Sand

CBE Total Req.	Credit	Actual Thick.	
	4.0	2.0	AC (F)
	8.0	4.0	AC (I)
	11.0	6.0	PMBB
	5.5	5.5	Cr. Base
28.5	28.5	17.5	

AASHO CLASSIFICATION:
A-5 (5)

MATERIAL SOURCES:
To be determined by the Engineer

See page 3 for remarks.

RECEIVED DEC 13 1968 181 C3 7188

NOTED F. P. KLABOE

cc:
P.E.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist

Submitted by _____ for Staff Assistant

Recommended by _____ Engineer of Materials

Recommended by _____ Asst. Construction Engineer

Approved by _____ Asst. State Highway Engineer

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section Saddle Mt. Road - Little North Fork Nehalem River Highway Sunset (FAR 27) County Clatsop Prefix 4-1472

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Mean Truck A.D.T. 437 Traffic Coefficient 9.2 18 kip s.a. per day 213.9.

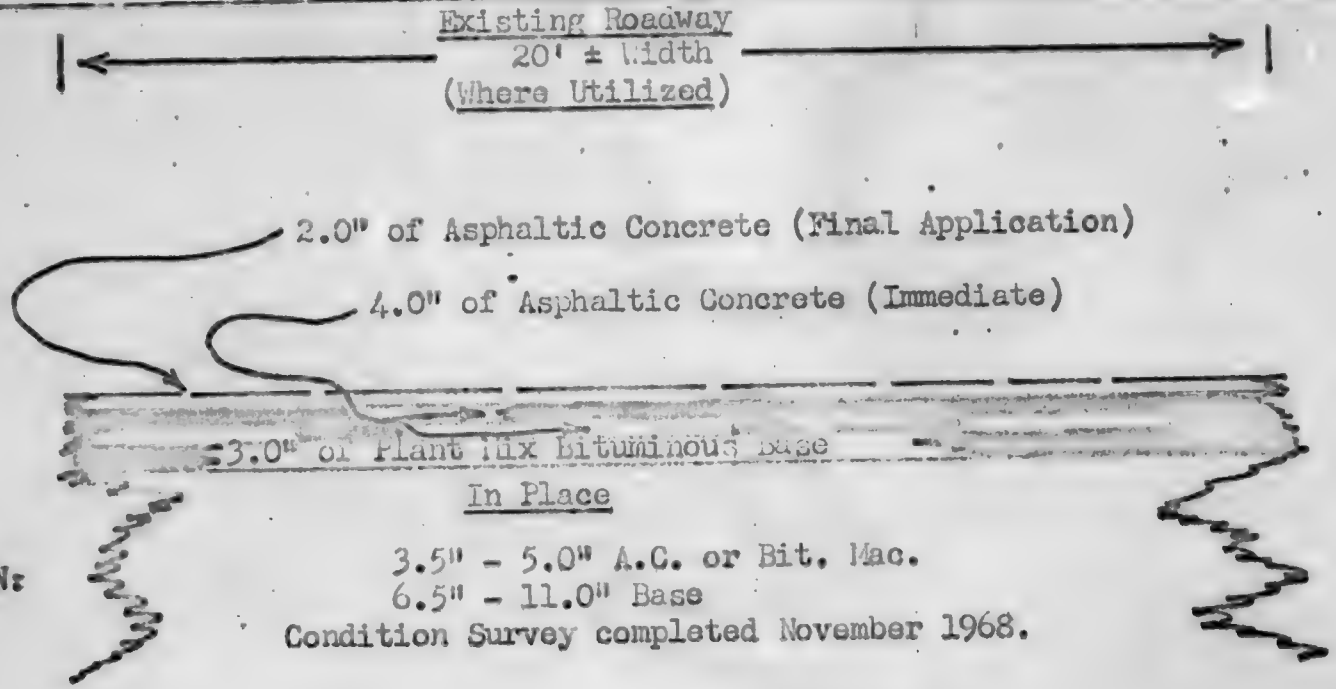
Annual Precipitation 80± Frost Penetration ---.

(1)
Typical Soil
54 LL
5 PI
89 %P 10
53 %P200
11 %Gravel
24 %C Sand
12 %F Sand
30 %Silt
23 %Clay
12 "R" Value

AASHO CLASSIFICATION:

A-5 (5)

MATERIAL SOURCES:
To be determined by the Engineer.


Existing Roadway
20' ± Width
(Where Utilized)
2.0" of Asphaltic Concrete (Final Application)
4.0" of Asphaltic Concrete (Immediate)
3.0" of Plant Mix Bituminous Base

In Place

3.5" - 5.0" A.C. or Bit. Mac.
6.5" - 11.0" Base
Condition Survey completed November 1968.

CBE Total Req.	Credit	Actual Thick.	
	4.0	2.0	A.C.(F
	8.0	4.0	A.C.(I
	5.5	3.0	PMBB
	In Place	Average	
	6.5	4.25	AC or Oil
	4.5	6.5	Base
28.5	28.5	19.75	

SECTION: Saddle Mt. Rd. - Little North Fork Nehalem River

HIGHWAY: Sunset Highway (FAR 27)

COUNTY: Clatsop Co.

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	P.M.B.B. ~~or C.T.B.B.~~	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
8.0-9.0	3.5"	4.0"	- -	12.5"	- -	26.5"	20.0"
7.0-8.0	3.5"	3.0"	- -	11.0"	- -	23.5"	17.5"
6.0-7.0	3.0"	- -	2.0"	12.5"	- -	20.5"	17.5"
4.8-6.0	2.0"	- -	2.0"	11.0"	- -	17.0"	15.0"
Cars Only	2.0"	- -	2.0"	6.5"	- -	12.5"	10.5"

Remarks:

The existing roadway at the time of the condition survey in November 1968, was cracked, alligatored in several areas, and quite heavily patched throughout the length of the project.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

NEW WORK

1.0"	Asphaltic Concrete	=	2.0" Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8" Crushed Base
1.0"	Cement Treated Base	=	-- " Crushed Base
1.0"	Oil Mat	=	1.1" Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8" Crushed Base
1.0"	Lime Treated Subgrade	=	-- " Crushed Base

CREDITS FOR EXISTING ROADWAY MATERIAL

1.0" Asphaltic Concrete or Oil	=	1.5" Crushed Base
1.0" Base Material	=	0.5" Crushed Base

TRAFFIC ANALYSIS

SECTION: Saddle Mtn.-Little No. Fk. Nehalem River
HIGHWAY: Sunset
COUNTY: Clatsop

2300 Present ADT (1968)

13 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	130	1.9	247	189	450	85,050
3	58	- -	110	84	1000	84,000
4	5	- -	10	8	1250	10,000
5	105	- -	200	153	3180	486,540
6	2	- -	4	3	2570	7,710
				437	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 673,300

TWENTY YEAR EWL 13,466,000

TRAFFIC COEFFICIENT 9.2

SECTION: Saddle Mtn. Rd.- Little North Fork Nehalem River

HIGHWAY: Sunset

COUNTY: Clatsop

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

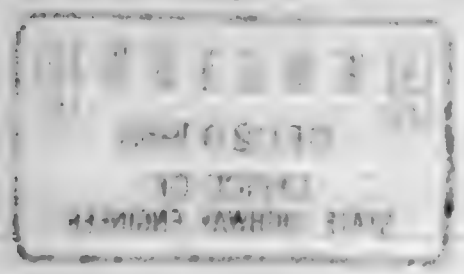
1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: See remarks
5. Cost Comparisons: _____

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A.C. or Oil
7. Stage Construction: Part of design
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: Not applicable
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made as proposed plans are for widening an existing 2-lane facility. A portion of the present roadway will be utilized with the addition of an overlay and A.C. is more desirable for this type construction.



SECTION: Saddle Mtn. Rd.- Little North Fork Nehalem River

HIGHWAY: Sunset

COUNTY: Clatsop

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: See remarks
5. Cost Comparisons: _____

Secondary Factors Governing Selection

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7. Stage Construction: Part of design
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
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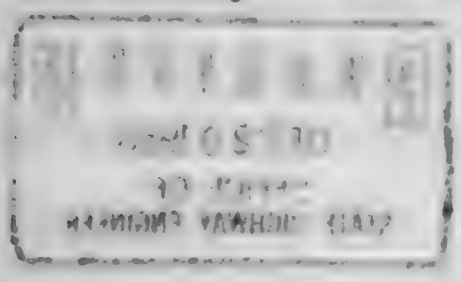


S-15-101(1) Crater Lake Hwy.-S. Fork 1969
Reese Cr. Sec., of FAS 15-101
#7291 N. of Medford (Paving)

CVA 3548

Oct 23-69
6-7-71

15

OREGON STATE HIGHWAY DEPARTMENT

FORM A-150 (3-64)

HIGHWAY DEPARTMENT INVOICE

NO. 106087

DATE	BILLING REQ. NO.	YOUR ORDER NO.	CREDIT DISTRIBUTION
6-7-71	CC 1963		515-1043-797

Contract 7291
S-15-101(1)

.Jackson County
.Courthouse
.Medford, Oregon 97501

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DEPARTMENT

SEND REMITTANCE TO:
OREGON STATE HIGHWAY DEPARTMENT
STATE HIGHWAY BUILDING
SALEM, OREGON 97310

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Attention: Robert Carstensen, Engineer			
Final Billings: Crater Lake Highway - S. Fork Reese Creek Section, Butte Falls Road, FAS 15-101. Covered by agreement dated August 20, 1968. 2 former FAS 287			
County Advance Deposit		27,600.00	
Amount previously transferred		20,600.00	7,000.00
County share of construction costs		23,395.78	
Amount previously transferred		[illegible]	2,795.78
Total refunded			4,204.22

ACKNOWLEDGMENT OF BILLING REQUEST

Cashier

By

RECEIVED
COUNTY & CITY SECTION
JUN 8 - 1971
ENGR. COOR. GE RE UE
UPE PE RPE

RECEIVED
DEC 16 1969
FOR FILING

5-15-101(1)

7291

December 15, 1969

United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, Washington 98401

Gentlemen:

Contract No. 7291 awarded to Rogue River Paving Company, Inc., for paving on the Crater Lake Highway-S. Fork Reese Creek Section of FAS 15-101 in Jackson County was completed on October 23, 1969, and accepted by the Highway Commission on December 12, 1969.

Final payment in the amount of $5,779.04 will be released to the contractor after December 22, 1969. The total contract amount is $116,700.85 including $1,525.13 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

sj

cc Rogue River Paving Co., Inc.
P. O. Box 250
Medford, Oregon 97501

bc Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
Carroll T. Keasey

FORWARDED
DEC 15 1969
FOR FILING
3-15-101(1)
7291

December 12, 1969

Oregon State Highway Commission

Gentlemen:

Work was completed October 23, 1969, on Contract No. 7291. The contract was with Rogue River Paving Company and was for paving on the Crater Lake Highway-South Fork Keene Creek Section of FAS 15-101 in Jackson County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective December 12, 1969, and that you concur in this procedure at the Commission meeting on December 23.

It is assumed that if you have no objections to this action and you do not advise us to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
F. D. Morgan
L. H. Young
C. T. Kassey

srb sr

S-15-101(1)

FORM S-1 REV. 7-61

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Crater Lake Highway - S. Fork Reese Creek		WEEK ENDING: November 8, 1969
		SECTION PREFIX: 515-1043
HIGHWAY: FAS 15-101(1)		COUNTY: Jackson
NAME OF JOB: Crater Lake Highway - S. Fork Reese Cr	KIND OF WORK: Paving	
CONTRACTOR: Rogue River Paving Company, Inc.	CONTRACT NUMBER: 7291	FEDERAL AID PROJECT NUMBER: S-15-101(1)
DATE OF CONTRACT: August 12, 1969	DATE WORK STARTED: September 29, 1969	ESTIMATED COMPLETION DATE: October 23, 1969
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS: 65	CALENDAR DAYS USED: 52
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 80
PROJECT AUTHORIZATION: $138,118.15		
EXCLUSIVE OF ENGINEERING: $127,166.05	ENGINEERING AUTHORIZATION: $10,952.10	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $120,072.51	ENGINEERING COST TO DATE: $5,160.95	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED PERCENT: ~~OVERRUN~~ UNDERRUN 5.6 %	PERCENT OF AUTHORIZATION 47 %	DATE PROJECT WAS COMPLETED: October 23, 1969

Semi-final estimate will be submitted Monday 11/10/69

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
				100			

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					3.19
MILES PARTIALLY COMPLETED					
MILES COMPLETED					3.19
TOTAL ESTIMATED QUANTITIES (CONTRACT)					12,600
TOTAL QUANTITIES CORRECTED TO DATE					12,696
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					12,696
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Fair			
MONDAY	Cloudy			
TUESDAY	Showers			
WEDNESDAY	Cloudy			
THURSDAY	Fair			
FRIDAY	Cloudy			
SATURDAY	Showers			

Routing
Morgan ME
Decke
Ward BW
Walker
Lucnine
Johnsen
RECEIVED
NOV 10 1969
CONSTRUCTION DIVISION
Cunningham
Stern
BEN GIFFORD

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

Project complete. Semi-final estimate will be submitted to Division Office Monday November 10, 1969.

This is the final Weekly Report.

SIGNED B. E. Brown
Resident Engineer

LOCATION Medford

PRIME RESIDENT SUBMIT 3 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 5 COPIES.

SP°F216

fas 15-101

JACKSON COUNTY ENGINEER

JACKSON COUNTY COURT HOUSE
MEDFORD, OREGON

NOTED
H. S. COX

October 30, 1969

Mr. Bill Brown
Resident Engineer
Oregon State Highway Department
2692 North Pacific Highway
Medford, Oregon 97501

Re: Pavement of the Crater Lake Highway -
Reese Creek Section - Butte Falls Road
FAS 15-101

Dear Mr. Brown:

This is to inform you of Jackson County's acceptance of the pavement of the Crater Lake Highway- Reese Creek Section of the Butte Falls Road FAS 15-101.

The pavement of this section has been completed to the County's satisfaction.

Very truly yours,

ROBERT J. CARSTENSEN
County Engineer
Jackson County, Oregon

RJC:aw

cor

NOTED
HAROLD REYNOLDSON

RECEIVED
NOV 12 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
P. B. Arentzen

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
N HARWELL

STATE COPY

Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-35		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT (PPM 21-7) 7-5-69	COUNTY
3		Jackson
		PROJECT NO. S-15-101(1)

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

Crater Lake Hwy. - S. Fk. Reese Cr. Section of FAS 15-101

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	7-9-69	3.193
OTHER (Specify)		

FUNDS Pro rata 63.54

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 133,859	$ 85,000.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By _____

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer September 5, 1969

USCOMM-DC 26854-P66

Oregon State Highway Division

Federal-Aid
Project No. S-15-101(1)

CRATER LAKE HWY.-S. FK. KEENE CR. SECTION

OF FAS 15-101 IN JACKSON COUNTY

Project agreement estimate.

Salem, Oregon, August 21, 1949

Type Code 6201
Roadway (Sta. 2+00 to Sta. 170+72)

Temporary Protection and Direction of Traffic	All Required		$ 4,000.00
Asphalt in Tack Coat	10 ton	90.00	900.00
Class "B" Asphalt Concrete Mixture	12,600 ton	6.50	81,900.00
Asphalt Concrete in Mixture	760 ton	36.00	27,360.00
Extra for A.C. Concrete Approaches	48 only	60.00	2,880.00
			$ 117,040.00
Flagging (60% of contractor's cost)	All Required		1,500.00
Signing and Striping	All Required		3,158.00
			$ 4,658.00
		Subtotal	$ 121,690.00
		10% Engr. & Cont.	12,169.00
		Total	$ 133,859.00

Length of Project 3.193 Miles
Cost of Roadway per Mile $41,923.64

Federal Funds	$ 83,000.00
State Funds	24,429.50
County Funds	24,429.50
Total	$133,859.00

State Funds for Const: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 329, Laws 1939.
State Funds for Maint: Chap. 329, Laws 1939.

6-1-1907
Prefix 515-10 4/4

RECEIVED
AUG 20 1969
FOR FILING

S-15-101(1)
7291

August 20, 1969

Rogue River Paving Company, Inc.
P. O. Box 250
Medford, Oregon 97501

Gentlemen:

Enclosed are three copies of Contract No. 7291 for $117,040 awarded to you by the State Highway Commission on August 12, 1969. This contract is for paving on the Crater Lake Highway-South Fork Reese Creek Section of FAS 15-101 in Jackson County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar workday count on this contract will begin September 2, 1969.

Very truly yours,

Floyd Quarry, Secretary
OREGON STATE HIGHWAY COMMISSION

cc
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Geibel (SAIF)
C. T. Keaney
B. E. Brown

RECEIVED
OCT 16 1969
FOR FILING

5-15-101(1)
72 91

Routing

Morgan, Pease, Swan, Glenn, Litchfield, Gallagher, Stein, Walker, Boehme, Johnsen

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
August 18, 1969

CONSTRUCTION DIVISION

To: MEMO TO THE FILES

SUBJECT: Bituminous Base on the Crater Lake Hwy.-S. Fork Reese Creek Section FAS 15-101 Highway

Last week while on a routine inspection in Southern Oregon, accompanied by Bill Brown, Resident Engineer, and Gil Decker and later with Chas. McInroe of Rogers Construction Company, a side trip was taken over the Crater Lake Highway-South Fork Reese Creek Section of FAS 15-101 Highway.

The State has just let a contract to Rogue River Paving Company to place asphaltic concrete pavement on this section following completion of the roadway and base construction now being done by Jackson County. A part of the work being done by Jackson County includes placement of a foot lift of crushed rock and also an 8-inch mat of bituminous base. The bituminous base construction was of considerable interest. The County was placing the base in three separate lifts of 3" - 3" - 2" consecutively. At the time of viewing, the first two lifts of 3 inches each had been placed.

The County has constructed this bituminous base by mixing a previously crushed 3/4"-0 Rogue River gravel with approximately 5 percent of a RC-800 asphalt. This mix was made in the County's plant (See photo on attached sheet) which consisted of a Receiving Hopper, a Pug Mill, An Elevator and a mix holding small silo. From there, the mixture is transported in trucks and layed by a conventional A. C. laydown machine. The attached photos show the base after the first two lifts. It was understood that RC-250 asphalt had been previously used, but was eliminated in favor of the RC-800 as it produced a considerably more stable mat. The heavy base on this project was designed due to very heavy log hauling on this roadway.

At the time this base was viewed in the field, it appeared to be in an excellent stable condition and was carrying the existing traffic without any perceptible rutting or grooving.

Trucking and laydown operations are similar to any normal paving job but the plant mixing operation has features which makes it considerably more economical than our present specifications. Production can be very high in

volume as it is not necessary to heat the aggregates. The asphalt is applied at an approximate 225° F. temperature at mixing time. Probably the only item which could give problems would be a wet aggregate which, if handled properly, could be easily overcome. Placing of the mix in 3-inch lifts allows some time for curing and provides better stabilization.

The County has indicated to Bill Brown that the completed base was costing them about $5.00 per cubic yard which would be comparable to about $3.00 per ton. This appears to be very low and I suspect equipment rental costs are low with the County. To get a contractor's viewpoint, McInroe went over the section with Brown and myself. He stated it was definitely a more economical construction than what we presently specify and that there should be saving of from 15 to 20 percent.

We intend to obtain some cores of this bituminous base and test them in our Materials Department. It does appear at this time that this method of constructing a bituminous base may have considerable merit and I would recommend that we write up a specification and try it on one of our projects.

John H. Walker
Field Construction Engineer

JHW:fw
Attach.
cc F. B. Klaboe
John Jenkins

RECEIVED
AUG 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
H. S. COX

Salem, Oregon
August 12, 1969

Crater Lake Highway-S. Fork Reese Creek
Section
Butte Falls Road, FAS 15-101
Jackson County

Mr. Vern Skoog
Controller

B U I L D I N G

Attention: Mr. John Kerr

Herewith is Jackson County's check (#35538) in the amount of $27,600 which is the required amount for the advance deposit for subject project. The contract is now clear for award.

NOTED
HAROLD
REYNOLDSON

Harold Reynolds
Planning Engineer
County and City Division

HR:lat

cc L. H. Young

Received by _____
Date 8/12/69

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
DON HARWELL

RECEIVED
JUL 25 1969
FOR FILING

5-15-101(1)
7291

July 22, 1969

MISC. CONTRACTS and AGREEMENTS No. 3748

Jackson County Court
Courthouse
Medford, Oregon 97501

Attention: Mr. C. W. Ambern
County Clerk

Gentlemen:

Attached for your files is a fully executed copy of an agreement covering Crater Lake Highway-South Fork Rogue Creek Section of Butte Falls Road.

A fully executed copy of this agreement has been retained for the Commission's files.

Very truly yours,

Floyd Quarry, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Attachment

bc: H. S. Cox
(one conformed agreement attached)

7-16-69

Oregon State Highway Commission
State Highway Building
Salem, Oregon

Attention: County and City Division

SUBJECT: Federal Aid Project No. _____

Highway No. FAS 15-101

Project Name Crater Lake Highway-South Fork
Reese Creek

Gentlemen:

1. We hereby certify that, to the best of our knowledge and belief, all rights-of-way or rights-of-entry for the above referred to Federal-aid project have been secured.

2. We hereby certify that: (check one)

☑ There has been no displacement of persons from residences, farms, or businesses; or

☐ All displaced persons have been tendered all assistance possible and given all available information to assist in re-establishment in residence, farm, or business.

3. We hereby certify that the occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to Federal-aid project have been authorized by permit, franchise, or other approved procedure.

Dated at Medford, Oregon, this 14 day of July, 19 69.

Jackson County

Judge

Commissioner

Commissioner

RECEIVED
JUL 17 1969
ENGINEER
COUNTY & CITY DIVISION

Copy to: John Oak,
C. T. Keasey
R. N. Chase
Owen Turner.

(11/29/66)

NOTED

TRANSACTION NUMBER 7-4

-M PR-48
.. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT	DATE
OREGON	7-9-69
BY (Signature) MR. YOUNG'S JUNE 26, 1969 LETTER	
TITLE	

CLASS OF FEDERAL FUNDS: ☐ FAI ☐ FAP ☐ FAU ☒ FAS ☐ OTHERS

GE 1 *
M NOS. ____ THRU ____

STAGE 2
ITEM NOS. 1007 THRU ____

EM O.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS
1007	S 15-101(1)	3.2	131,000	78,600

OTHER IDENTIFICATION AND/OR REMARKS (State)

LOCATION	WORK
CRATER LAKE HIGHWAY REESE CREEK SECTION OF BUTTE FALLS ROAD IN JACKSON COUNTY	PAVING

NOTED
H. R. KLABOE

RECEIVED
JUL 11 1969
OFFICE OF
STATE HIGHWAY ENGINEER

MARKS (Division)

ON ITEM 1007, S 15-101(1) CRATER LAKE HIGHWAY TO SOUTH FORK REESE CREEK SECTION - IT IS UNDERSTOOD THAT THE MINOR DEVIATIONS IN SHOULDER WIDTH, HORIZONTAL AND VERTICAL ALIGNMENT ARE APPROVED AS A SECONDARY ROAD PLAN DESIGN EXCEPTION.

YOU ARE AUTHORIZED TO PROCEED WITH ACTIONS NECESSARY TO ADVANCE TO COMPLETION THE PHYSICAL CONSTRUCTION PROVIDED FOR BY THE ABOVE PROJECT IN ACCORDANCE WITH THE PROVISIONS OF YOUR APPROVED SECONDARY ROAD PLAN. IF YOU SUBSEQUENTLY FIND THAT EXCEPTIONS TO THE PROCEDURE WILL BE NEEDED OR THAT YOUR PROPOSED DESIGN STANDARDS FOR THE PROJECT IS LOWER THAN THE MINIMUM DESIGN AS APPROVED JUNE 24, 1968 THIS OFFICE SHOULD BE NOTIFIED OF SUCH PROPOSED EXCEPTIONS AND THE REASONS THEREOF.

FOR FILING
S 15-101(1)
7-91

JUL 16 1969

RECOMMENDED		APPROVED	
SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE	DATE
	JULY 9, 1969	FOR R. E. SIMPSON DIVISION ENGINEER	

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-954

7-2-69

RESOLUTION

In accordance with Section 141, Chapter 1, Title 23, United States Code, JACKSON County does hereby resolve and give the following assurances:

1) that every reasonable effort shall be made to acquire the real property by negotiation;

2) that the construction of projects shall be so scheduled that to the greatest extent practicable no person lawfully occupying the real property shall be required to move from his home, farm, or business location without at least 90 days' written notice from the State or political subdivision having responsibility for such acquisition; and

3) that it will be the policy of the County, before initiating negotiations for real property, to establish an amount which is believed to be just compensation, under the law of the State, and to make a prompt offer to acquire the property for the full amount so established.

APPROVED July 7 1969
BOARD OF COMMISSIONERS JACKSON COUNTY
BY Geo. R. M. Miller
COMMISSIONER
Roderick Earle
COMMISSIONER
Henry Padgham
COMMISSIONER

NOTED
HAROLD
REYNOLDSON

RECEIVED
JUL 3 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
R. H. PRANGE

Fed 15-101 - 15 7291

MONTHLY TRANSACTION NO. 7-4

FORM PR-1 (REV. 4-61)

FEDERAL-AID P (PPM

DATE SUBMITTED TO W.O. JUL 9 1962

CARD 2	REPORT NUMBER (18) 1 (20)	PROJECT LOCATION (45 typewriter spaces) 21 Co.Rd. 12.8 Mi. W. Butte Falls W. 3.2 Mi. 66					ADT	PRESENT 800	FUTURE 1,300 (68)	(70)	YEA (71)
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28 High-Type Pavement 62		NATL. FOREST (63) (65)	FH ROUTE NO. (66) (68)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72) B-3 (73)	PL. AUT (74)		
CARD 4	CLASS OF FEDERAL FUNDS Secondary							COUNTY NAME			
	NAME OF URBAN AREA 17-31							ROUTE NO. S	FEDERAL-A 15-101		

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT C: TOTAL ESTIMATED COST	FEDERAL FUNDS
1	(1-4 5)	(18)	41	42	43 46	53		(54) (58)	(59) (66)	(67)
5					PE		Co.Rd. 12.8 Mi. W. of Butte Falls W. 3.2 Mi. (Crater Lake Hwy.- S. Fork Reese Creek Section)			
5					ROW					
5	30			3	CONST (CODE) 6201	3		3.2	131,000	78,600
							PROJECT TOTALS	3.2	131,000	78,600

CARD 1	CODE 1	PREPARED BY	
1	14	PROGRAM APPROVAL DATES B.P.R. OREGON DIVISION JUL 9 1962	(16) (23) (24)

NOTED
R. H. PRANGE

NOTED
H. S. COX

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

RECE
JUL 1
ENG
COUNTY

Jackson - fas 15-101

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

	ADT	PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
(65)		800	1,300 (66) (70)	89 (71) (72)	08	Oregon	35 (2) (3)	022 (4) (9)	1007 (14) (18)

ADV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72) (75)	PL. AUTH YR (74) (78)	PROJECT NUMBER PREFIX LETTER(S) (14) (22)	NUMBER (7) (18)	SEQ. NO.	I. Projects Only POST MI. (24) (28)	DESIG. (27)
			B-3			S- 15-101(1)			

COUNTY NAME: Jackson — CODE: 029 (14) (16)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO.: S — FEDERAL-AID: 15-101 — STATE: Co.Rd. (22) (36) (37) — U.S. (41)

ESTIMATED PROJECT COST BY PHASES

MILES (54) (58)	TOTAL ESTIMATED COST (59) (66)	FEDERAL FUNDS (67) (76)	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK *(Full description)*
					2-12' lanes high-type pavement with 4' to 8' shldrs. (4' paved). (Grading and rock base done by County.)
					ROW-60' Min.; Access Control-None; Parking Restrictions-None.
3.2	131,000	78,600	26,200	26,200 (Co.)	
3.2	131,000	78,600	26,200	26,200 (Co.)	

(16) (23) (24) (33)

RECEIVED
JUL 11 1969
ENGINEER
COUNTY & CITY DIVISION

REMARKS

Relocation assistance - none involved.

NOTED
HAROLD REYNOLDSEN

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

USCOMM DUSCOMM-DC 46905-P61

NOTED
DON HARWELL

CRATER LAKE HWY.-S. FORK REESE CREEK SECTION

PROJECT S-15-101(1)

Existing Facilities: A roadway with a 22' bituminous surface and 4' gravel shoulders is being grade
by County forces. Alignment is being improved and base rock is being placed to accommodate 2-12' tr
and shoulders varying from 4' to 8'.

Adjacent Sections:

East End: 32' A.C. paving for 2-12' travel lanes and 4' shoulders.
West End: Ore. 62, Crater Lake Hwy.

Project Data: Pave with A.C. a strip 32' in width to provide for 2-12' travel lanes and 4' paved sh
Signing and striping are to be included as part of the project.

Right of Way:	Minimum 60'.
Access Control:	None.
RR Xing:	None.
Minimum Design Standards:	There are some minor deviations in shoulder width, horizontal a alignment which were justified and verbally accepted by the BP Completed.
System Action:	Not required - right of way acquired previous to January 14, 1
Public Hearing:	This project is stage construction of an over-all project to i
Unusual or Complicated Situations:	section. The grading and rock base done by the County for the design under this program. The County applied to the State in for a Federal-Aid Secondary Project covering the paving stage based on their construction of roadbed and rock base for 2-12' pavement with 4' to 8' shoulders (4' of shoulder area to be pa Highway Commission approved the paving as a Federal-Aid Secon August 20, 1968 as applied for by the County. In view of thes approval was given this project prior to January 14, 1969 and graph 10 of PPM 20-8 dated January 14, 1969 does not apply.
Route Data:	S-41(4)
Parks and Recreation Areas Affected:	None.
Relocation Assistance:	None.
Social, Economic and Environmental Effect Considered:	Yes.

CRATER LAKE HWY.-S. FORK REESE CREEK SECTION

PROJECT S-15-101(1)

A roadway with a 22' bituminous surface and 4' gravel shoulders is being graded and based
lignment is being improved and base rock is being placed to accommodate 2-12' travel lanes
g from 4' to 8'.

A.C. pav'ng for 2-12' travel lanes and 4' shoulders.
62, Crater Lake Hwy.

with A.C. a strip 32' in width to provide for 2-12' travel lanes and 4' paved shoulders.
g are to be included as part of the project.

	Minimum 60'.
	None.
	None.
ards:	There are some minor deviations in shoulder width, horizontal and vertical alignment which were justified and verbally accepted by the BPR at the site.
	Completed.
	Not required - right of way acquired previous to January 14, 1969.
ated Situations:	This project is stage construction of an over-all project to improve this section. The grading and rock base done by the County for the pavement design under this program. The County applied to the State in August 1968 for a Federal-Aid Secondary Project covering the paving stage of the project based on their construction of roadbed and rock base for 2-12' lanes A.C. pavement with 4' to 8' shoulders (4' of shoulder area to be paved). The Highway Commission approved the paving as a Federal-Aid Secondary Project, August 20, 1968 as applied for by the County. In view of these facts design approval was given this project prior to January 14, 1969 and therefore paragraph 10 of PPM 20-8 dated January 14, 1969 does not apply.
	S-41(4)
ion Areas Affected:	None.
ance:	None.
and Environmental ed:	Yes.

15

SAFETY: MD

MEMO TO R. N. CHASE Date June 23, 1969

FAS 15-101, JACKSON COUNTY, Crater Lake Hwy.-S. Fork Reese Creek SECTION

TERMINI: Junction with FAP 15-001, then easterly 3.2 miles to the beginning of project #S-41(6) M.P. 0.00 to 3.2

PROPOSED WORK: Paving.

NOTED
H. S. COX

PROJECT LENGTH: 3.2 miles

COSTS:	TOTAL	FEDERAL	STATE	COUNTY	OTHER
CONSTRUCTION	$131,000	$78,600	$26,200	$26,200	

EXISTING FACILITIES: A roadway with a 22' bituminous surface and 4' gravel shoulders is being graded and based by County forces. Alignment is being improved and base rock is being placed to accommodate 2-12' travel lanes and shoulders varying from 4' to 8'.

ADJACENT SECTIONS:
~~NORTH~~/EAST END: 32' A.C. paving for 2-12' travel lanes and 4' shoulders

~~NORTH~~/WEST END: FAP 15-001

PROJECT DATA: Pave with A.C. a strip 32' in width to provide for 2-12' travel lanes and 4' paved shoulders. Signing and striping are to be included as part of the project.

RIGHT-OF-WAY: Minimum 60'
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: There are some minor deviations in horizontal and vertical alignment which were justified and verbally accepted by the EER at the sight.
SYSTEM ACTION: Completed
PUBLIC HEARING: Not necessary - right of way acquired previously.

UNUSUAL OR COMPLICATED SITUATIONS: None

ROUTE DATA: S-41(4)

NOTED
MAINOR C. HOLMES

NOTED
P. B. Arensmeier

Parks and recreation areas affected No
Relocation assistance No
Social, economic and environmental effect considered-Yes

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
HAROLD REYNOLDSON

Location and design approval by Assistant Highway Engineer to be acquired upon completion of plans.

NOTED
DON HARWELL

RECEIVED
MAY 28 1969
GAME COMMISSION

5-15-101(1)

7291

OFFICE OF THE DIRECTOR
P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
J. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

May 23, 1969

cc's sent 5-27-69

F.B. Klaboe
F.D. Morgan
L.H. Young
G.C. Wills
F.E. Terpin (11)
T.C. Roake (11)
A.E. Johnson (4)
L.W. Rulien (6)
R.D. Asburry (8)
C.T. Keasey (2)
A.F. Parson (2)

State Highway Engineer
State Highway Department
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

We have reviewed the project plan title sheets sent with your letter of May 19, 1969.

The projects are all approved as there will be no conflict with wildlife resources. The approved projects are listed below.

1. Fremont Bridge Section
   Stadium Freeway, Multnomah County

2. Nyberg Road Interchange Section
   Pacific Highway, Washington County

3. Fountain Slide Section
   Columbia River Highway, Hood River County

4. Kittridge Avenue (Portland) Channelization Section
   Columbia River Highway, Multnomah County

5. Division Street-Hilda Street (Oregon City) Section
   Cascade Highway, Clackamas County

6. Columbia River Highway-Old Portland Road Section
   FAS 574 (Gable Road), Columbia County

7. Ward Drive-Silverton Road Section
   FAS 741 (Lancaster Drive), Marion County

8. Crater Lake Highway-South Fork Reese Creek Section
   FAS 15-101, Jackson County

9. Powder River (McDougal) Lane Section
   FAS 506, Baker County

10. Murder Creek Section
    Pacific Highway, Linn County

11. Saddle Mountain Junction-Little North Fork Nehalem River
    Section Sunset Highway, Clatsop County.

Regarding the final project listed, "Saddle Mountain Junction, Little North Fork Nehalem River Section," passage for fish should be maintained and precautions should be taken against siltation.

Very truly yours,

JOHN W. McKEAN
DIRECTOR

By R. O. Koski

R. O. Koski
Chief of Liberations

ROK:js

cc: Dir. OFC

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

May 1, 1969
(date)

NOTED
H. S. COX

Jackson County Court
Courthouse
Medford, Oregon 97501

Attention: Mr. Robert J. Carstensen
County Engineer

In order to comply with requirements of the Bureau of Public Roads covering protection of public resources such as recreational areas, historical sites, wild life refuges, or any other facility in which the public has a specific interest, it is required that local public authorities should be consulted regarding the impact on these resources of a planned highway improvement.

Would you please fill out the form below regarding these resources and return it to the Oregon State Highway Department, County and City Division, State Highway Building, Salem, Oregon (97310). Retain the second copy for your records.

NOTED
DON HARWELL

Highway FAS 15-101

NOTED
MAINOR C. HOLMES

Section Crater Lake Highway-S. Fork Reese Creek: Pave

Do you know of any public organization or quasi-official organizations that might be opposed to this project on the grounds of interference with recreational, historical, or public resources? Yes ☐ No ☑

If answer is yes, please list organizations:

RECEIVED
MAY 15 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
HAROLD REYNOLDSON

5-14-69
(date)

By [signature]

By [signature]
Commissioner

By [signature]
Commissioner

cc: L. H. Young
Attn: Duane Ridings

NOTED
R. H. PRANGE

NOTED
P. B. Arnsmeier

NOTED
RICHARD UNREIN

RECEIVED APR 16 1969

Memorandum

KLABOE

FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: April 15, 1969

In reply refer to: 08-35-DB

5-15-101(1)

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

129

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon FAS 15-101
Crater Lake Highway - Reese Creek Section
Butte Falls Road

The proposed Federal-aid paving project was submitted under Mr. Cox's letter dated March 31, 1969 requesting our concurrence in certain deviations from standards. The deviations are primarily connected with the grading portion which is being performed by the County on work not involving Federal funds. The slopes on surfacing material do not conform to standards and we feel that strong support of this deviation should be presented for further review.

We feel that all facets of the roadway section should be constructed to approved standards when Federal funds are applied to any part of the project. Any deviations from standards should be fully supported.

Our Area Engineer has disucssed these deviations with the City-County Division and has suggested considerations for bringing the geometric design closer to standards. These suggestions have been sketched on the preliminary plan for further consideration by your department and the County. This plan was hand delivered to the City-County Division.

Confirming the advise of our Area Engineer, each individual case where deviations are necessary should be covered by full justification and reasons.

We have not approved your request pending further consideration and justification of the proposed deviations.

4-16-69
Barbee-Cox-Young
By Asst. State Hwy. Engr.

RECEIVED
APR 16 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

NOTED
F. B. KLABOE

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section CRATER LAKE HIGHWAY - REESE CREEK Highway F.A.S. 15-101 County JACKSON Prefix 515-1479

Res. Engr. _____ Approx. Length 3.2± Miles. Sta. _____ to Sta. _____ Date 4-3-69

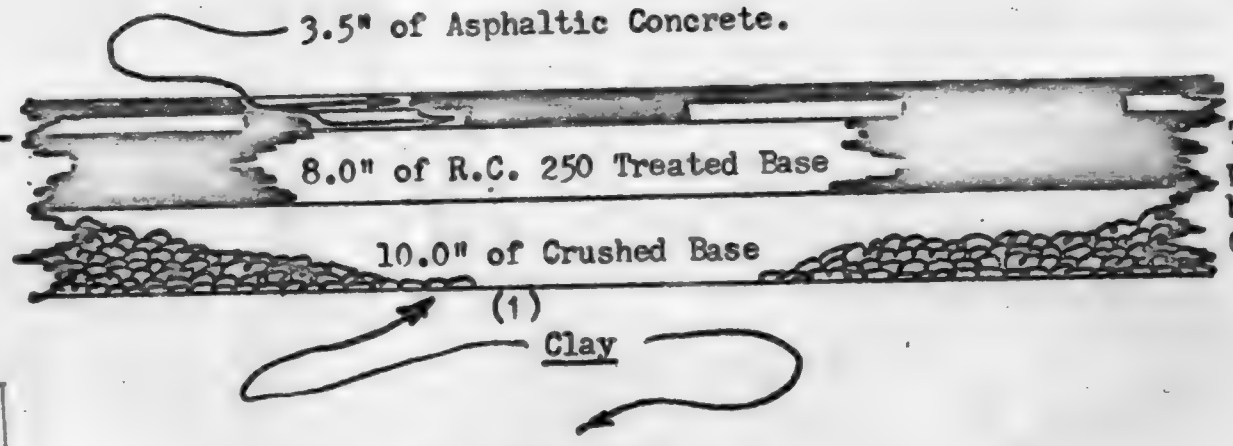
Mean Truck A.D.T. 341 Traffic Coefficient 9.1 18 kip s.a. per day 193.9.

Annual Precipitation 35"± (Butte Falls) Frost Penetration - - - - - - -.

"NEW WORK"

(1)
Typical Soil
56 LL
27 PI
93 %P 10
64 %P200
7 %Gravel
15 %C Sand
14 %F Sand
28 %Silt
36 %Clay
9 "R" Value

State Project



	CBE Total Req.	Credit	Actual Thick.	
		7.0	3.5	AC
		12.0	8.0	Treated Base
To be placed by the County	29.0	10.0	10.0	Crushed Base
		29.0	21.5	

AASHO CLASSIFICATION:

A-7-6 (15)

MATERIAL SOURCES:
To be determined by the Engineer.

cc:
B.P.R.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist County-City (2)

RECEIVED APR 14 1969

See remarks on Page 4.

NOTED
F. B. KLABOE

Submitted by G. J. Berry for Staff Assistant Recommended by John C. Jackson Asst. Engineer of Materials

Recommended by A. L. Becker asst Construction Engineer Approved by F B Kloboe Asst. State Highway Engineer

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section CRATER LAKE HIGHWAY - REESE CREEK Highway F.A.S. 15-101 County JACKSON Prefix 515-1479

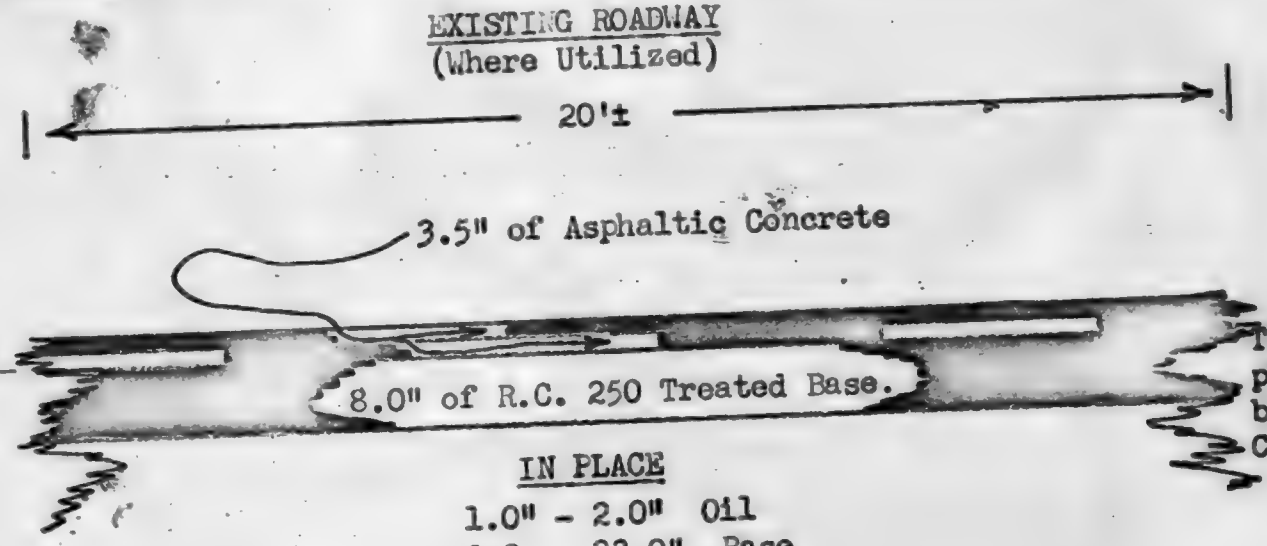
Res. Engr. _____ Approx. Length 3.2± Miles. Sta. _____ to Sta. _____ Date 4-3-69

Mean Truck A.D.T. 341 Traffic Coefficient 9.1 18 kip s.a. per day 193.9.

Annual Precipitation 35"± (Butte Falls) Frost Penetration -----.

(1)

Typical Soil
56 LL
27 PI
93 %P 10
64 %P200
7 %Gravel
15 %C Sand State
14 %F Sand Project
28 %Silt
36 %Clay
9 "R" Value



IN PLACE
1.0" - 2.0" Oil
0.0 - 23.0" Base

	CBE Total Req.	Credit	Actual Thick.	
		7.0	3.5	A.C.
		12.0	8.0	Treated Base
		IN PLACE	AVERAGE	
To be placed by County		1.4	1.4	Oil
		8.4	16.7	Base
	29.0	28.8	29.6	

AASHO CLASSIFICATION:

A-7-6 (15)

MATERIAL SOURCES:

To be determined by the Engineer.

See Page 4 for remarks.

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section CRATER LAKE HIGHWAY - REESE CREEK Highway F.A.S. 15-101 County JACKSON Prefix 515-1479

Res. Engr. Mean Approx. Length 3.2± Miles. Sta. to Sta. Date 4-3-69

Truck A.D.T. 341 Traffic Coefficient 9.1 18 kip s.a. per day 193.9.

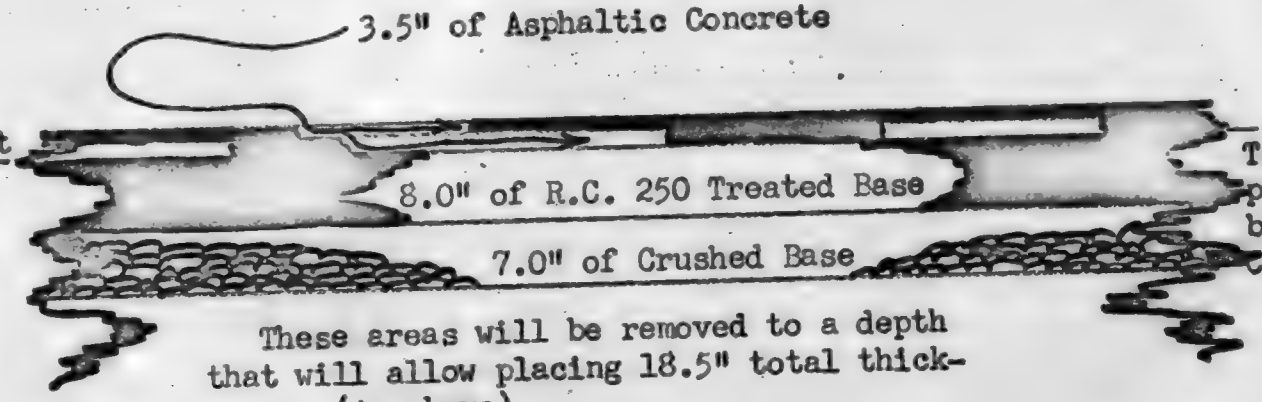
Annual Precipitation 35"± (Butte Falls) Frost Penetration ----.

EXISTING ROADWAY

(1)

Typical Soil
56 LL
27 PI
93 %P 10
64 %P200
7 %Gravel
15 %C Sand
14 %F Sand
28 %Silt
36 %Clay
9 "R" Value

State Project



These areas will be removed to a depth that will allow placing 18.5" total thickness. (As above)

AASHO CLASSIFICATION:
A-7-6 (15)

MATERIAL SOURCES:
To be determined by the Engineer.

	CBE Total Req.	Credit	Actual Thick.	
		7.0	3.5	A.C.
		12.0	8.0	Treated Base
		7.0	7.0	Cr. Base
To be placed by County	IN PLACE AVERAGE	3.0	Variable depths of base	
	29.0	29.0		

See Page 4 for remarks

SECTION: CRATER LAKE HIGHWAY - REESE CREEK

HIGHWAY: F.A.S. 15-101

COUNTY: JACKSON

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	R.C. 250 Treated Base ~~XXXXXX~~ or ~~XXXX~~	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
8.0 - 9.0	3.5"	8.0"	—	8.5"	—	27.5"	20.0"
7.0 - 8.0	3.5"	6.0"	—	8.0"	—	24.0"	17.5"
6.0 - 7.0	3.0"	—	2.0"	13.0"	—	21.0"	18.0"
4.8 - 6.0	2.0"	—	2.0"	11.5"	—	17.5"	15.5"
Cars Only	2.0"	—	2.0"	7.0"	—	13.0"	11.0"

Remarks:

There may be areas where solid rock is encountered, if so, the thickness shown on Page 2 should be used.

Portions of the "Existing Roadway" to be utilized, and selection of the thickness to be used will be at the discretion of the Jackson County Engineer.

The R.C. 250 Treated Base will be placed in 3 lifts, with necessary curing time allowed between placement of lifts.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0" Crushed Base
1.0"	R.C. 250 Treated Base	=	1.5" Crushed Base
1.0"	Cement Treated Base	=	1.8" Crushed Base
1.0"	Oil Mat	=	1.1" Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8" Crushed Base
1.0"	Lime Treated Subgrade	=	0.8" Crushed Base

Above factors apply to materials that comply with Standard Specifications, Supplemental Standard Specifications, and Special Provisions.

TRAFFIC ANALYSIS

SECTION: CRATER LAKE HWY. - REESE CREEK

HIGHWAY: F.A.S. 287

COUNTY: JACKSON

830 Present ADT (1969)

29 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	40	1.8	72	56	450	25,200
3	103	1.8	185	144	1000	144,000
4	4	1.8	7	6	1250	7,500
5	96	1.8	173	135	3180	429,300
6	0	—	—	—	2570	—
				341	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 606,000

TWENTY YEAR EWL 12,120,000

TRAFFIC COEFFICIENT 9.1

SECTION: CRATER LAKE HIGHWAY - REESE CREEK

HIGHWAY: F.A.S. 15-101

COUNTY: JACKSON

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good x Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: Asphaltic Concrete or Oil
7. Stage Construction: Not applicable
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: County requested Asphaltic Concrete
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction

CONCLUSION AND REMARKS:

No cost comparison made for this project as the County will place the crushed and treated base and the State will place the Asphaltic Concrete.

NOTED
H. S. COX

Salem, Oregon
April 1, 1969

Mr. D. J. Barbee
Design Engineer

BUILDING

Crater Lake Highway-Reese Creek Section
Butte Falls County Road
FAS 15-101
Jackson County

Attention Mr. P. L. Carstensen

The survey for the above project has been examined and has been found to be consistent with the project requested by the County and approved by the Highway Commission except for some substandard horizontal and vertical alignment. We contacted the County for an explanation. The attached letter was received.

We are sending a letter to the BPR requesting a deviation from standards for the above alignment. We are also asking in this letter for acceptance of 4' shoulders on this project because of mountainous terrain.

NOTED
HAROLD
REYNOLDSON

Harold Reynoldson
Planning Engineer
County and City Division

HR:eb

Enc.

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
DON HARWELL

FORM S-122X 50 M 6-67

RECEIVED
APR 15 1969

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. GALE, MEMBER
PENDLETON

5-15-101(1)
7291

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

March 31, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N.E.
Salem, Oregon 97303

Dear Sir:

Attached is a copy of correspondence from Mr. Robert J. Carstensen, Jackson County Engineer, covering some points of minor deviation from standards on the Crater Lake Highway-Reese Creek Section of the Butte Falls County Road, FAS 15-101, in Jackson County. We concur in the County's engineering judgment in this matter of the minor exceptions to our alignment standards, and your concurrence is requested.

The project consists of an FAS-C paving contract on a grade and base surfacing constructed by Jackson County. The County with its own forces and finances has acquired the necessary rights of way, has designed the project using Class C Highway Standards as a guide, and has started its grading operations. You will note on the attached reduced set of plans submitted by the County that there are only two 12° horizontal curves and three vertical curves where it is not feasible or practical to meet the required standards for reasons stated in the County's letter. We feel that with the proper implementation of speed control, signing and striping, as suggested by the County, these areas will not be a hazard to the traveling public.

It should also be noted that the typical section for the project shows two 12-foot travel lanes with 4-foot paved shoulders. We have used the prerogative of selecting 4-foot shoulders due to the rugged terrain and also to match previous FAS-C projects constructed on this route. Jackson County will, where possible, construct 2 to 4-foot additional gravel shoulders outside the normal paved shoulders to provide an extra margin of safety.

Very truly yours,

Forrest Cooper
State Highway Engineer

By
H. S. Cox
County and City Engineer

RHP:sb
Att.
bc: Forrest Cooper
R. L. Porter
F. B. Klaboe
D. J. Barbee
F. D. Morgan
L. H. Young
C. T. Keasey

NOTED
FORREST COOPER

RECEIVED
APR 9 1969
OFFICE OF
STATE HIGHWAY ENGINEER

JACKSON COUNTY ENGINEER

JACKSON COUNTY COURT HOUSE
MEDFORD, OREGON

March 25, 1969

Mr. H. S. Cox
County and City Relations Engineer
Oregon State Highway Department
Salem, Oregon 97301

Dear Mr. Cox:

This is written in reference to certain substandard vertical and horizontal curves as shown on the County design for the Crater Lake Highway - Reese Creek section of the Butte Falls Road (FAS 287) in Jackson County.

It is not possible for the County to revise these substandard vertical and horizontal curves due to the topography of the area and the fact that existing roadside culture, such as driveway approaches and irrigation facilities would be rendered unusable. It is our proposal that speed control will be established on this section of road at forty-five miles per hour and the substandard vertical curves will be double striped for no passing in accordance with the Uniform Traffic Control Devices Manual of Oregon, and the horizontal curves will be signed appropriately in conformance with the sign manual.

It is requested that the plans for this section of road be approved as submitted by the County since it is impractical to make revisions so as to eliminate the substandard features.

Very truly yours,

RECEIVED
MAR 26 1969
ENGINEER
COUNTY & CITY DIVISION

ROBERT J. CARSTENSEN
County Engineer
Jackson County, Oregon

RJC:aw

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
[illegible] HARWELL

OREGON STATE HIGHWAY DEPARTMENT
PAVING PROJECT
CRATER LAKE HIGHWAY - REESE CREEK SECTION
BUTTE FALLS ROAD, FAS 15-101
JACKSON COUNTY
JANUARY 1969

NARRATIVE REPORT

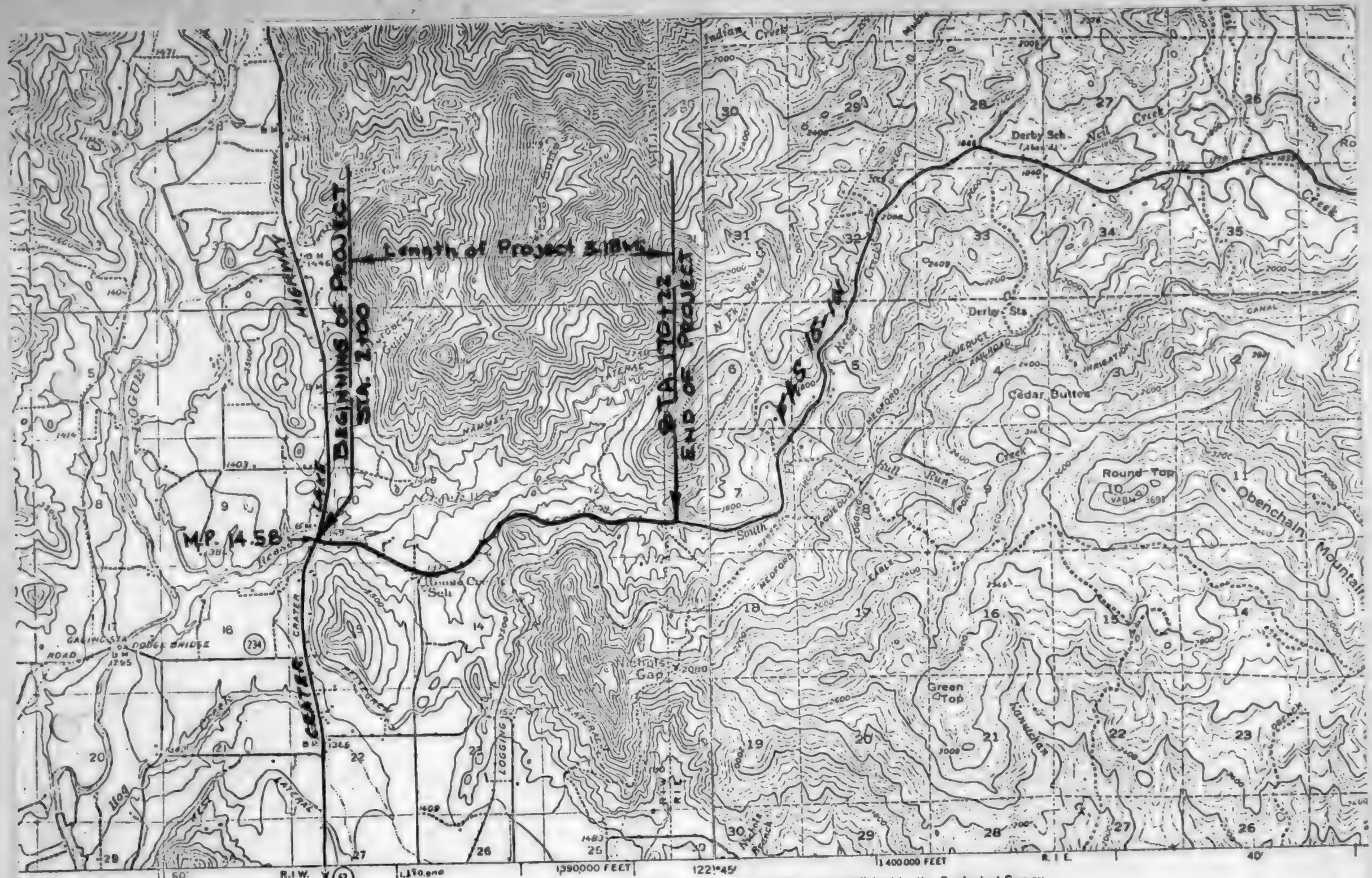
This project begins approximately 200 feet easterly of M.P. 14.58 on the Crater lake Highway at the junction of Butte Falls County Road. The proposed alignment follows the existing facility easterly to the westerly terminus of the Reese Creek - Reese Creek Summit Project completed in August 1967. The overall length of the project is 3.2 miles.

It is planned, at this time, that the County forces will construct the roadbed up to and including the stone leveling course and that the State will prepare plans and specifications, and let the paving contract.

The proposed typical section will be (2) 12-foot travel lanes and (2) 4-foot paved shoulders. The proposed AC surfacing thickness is: base course 2-inches and wearing surface 1½-inches, full thickness on shoulders. Final gravel shoulders varying up to 4' beyound A.C. surfacing will be constructed by the county forces.

The County Engineer was contacted regarding Class of Highway or FAS Standards. An OSHD Class "C" (M), 1500 ADT projected was the Counties desired standard. It was pointed out that 2 - 12° horizontal curves and 3 vertical curves were substandard by Class "C" definitions. The County Engineer felt that the standards should be lowered or eased in these particular cases. See copy of County Engineers Plan and Profile which shows, in red, the curves that are substandard according to Class "C" criterion. In regards to standards please note that the Authority for Survey prepared by the Salem Location Office (F.L. Carstensen) attached to this report, states that field will certify FAS standards but does not identify which type or class.

The work to be done by contract will be the paving of 3.2 miles of roadway and approaches requiring approximately 12,890 Tons of Class "B" Asphaltic Concrete Mixture and 775 Tons of Asphalt Cement in Mixture. There are approximately 48 road approaches on this project requiring Extra for AC Concrete Approaches. The County has offered its quarry located within a mile of the easterly end of this project. The Unit Price of Asphalt is based on commercial source since the previous paving project asphalt was hauled from Medford area.



Polyconic projection: 1927 North American datum
5000 yard grid based on U.S. zone system, G
10000 foot grid based on Oregon (South) rectangular coordinate system

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS, and Medford Water Commission

Topography from aerial pl
Aerial photographs taken
Polyconic projection. 19:
10,000-foot grid based on
Dashed land lines indicate
Unchecked elevations are

4 Miles
5000 6000 7000 Yards
10000 Feet
5 Kilometers

ROAD CLASSIFICATION 1945

Dependable hard surface
heavy duty road
Secondary hard surface
all weather road

Dry weather roads
Loose surface graded
Unsurfaced, graded
Dirt road

U. S. Route
State Route

TRAIL, OREG
Edition of 1945
M4230-W1224S/15

OREGON STATE HIGHWAY DEPARTMENT
SMALL SCALE MAP
PAVING PROJECT
CRATER LAKE HIGHWAY - REESE CREEK SECTION
BUTTE FALLS ROAD, FAS 15-101
JACKSON COUNTY
JANUARY 1969

JACKSON COUNTY
PROPOSED PROJECT (1968 Funds)

FAS 15-101 - Butte Falls Road; Crater Lake Highway-Reese Creek Section; paving; 3 miles - $274,000.

This project is for paving a roadway 32 feet in width using A.C. Roadway will consist of 2-12' travel lanes with 4' shoulders.

The grading, drainage, basing, and leveling is to be done by County. There will be gravel shoulders varying up to 4' beyond the A.C. surfacing. County has offered its quarry as a source of aggregate. No utilities are involved.

County will do the surveying and will acquire the necessary additional right of way.

68-1
7/22/68

Approved 8/20/68

7/2/68

COUNTY ROAD FAS PROJECT DATA

7-16-68

1. Name of County Jackson FAS No. 15-101
2. County Road Name Butte Falls Road
3. Section Name Crater Lake Highway to Reese Creek Length 3.0
4. Type of Project Paving
5. Survey to be done by: State _____ County X
   (NOTE: If project is canceled, County must pay for survey.)

PROJECT DATA -

6. Has base design been given to County? Yes X No ____
   Will it be furnished? Yes ____ No ____
7. Wearing Surface: Type A.C. Width 32' Shoulders 0' to 4'
8. Grading & Drainage:
   By County X County Date of Completion 3/1/69 By Contract ____
9. Bottom Base Course:
   By County ____ County Date of Completion 4/30/69 By Contract ____
10. Leveling Course:
    By County ____ County Date of Completion 6/20/69 By Contract ____
11. Wearing Surface:
    By County ____ County Date of Completion _____ By Contract X
12. Clearing:
    By County ____ County Date of Completion 1/15/69 By Contract ____
13. Is there any merchantable timber on right-of-way? Yes ____ No X
14. Will timber be reserved for owner? Yes ____ No ____
15. Will timber become property of contractor? Yes ____ No ____
    Remarks _____

MATERIAL SOURCE -

16. Gravel _____ Quarry X Cinders _____
17. Owner: County X State _____ Private _____
18. Location: _____ Section 7 Township 35 S. Range 1 E. W.M.

CCS 11-6

19. Materials furnished by County: Borrow____ Select Topping____

Base Course____ Level Course____ Mineral Aggregates X

20. Miscellaneous Items: _____

Remarks: Contractor may use County-owned quarry for manufacture of paving aggregate ckd by State.

FINANCIAL- -

21. Estimated Cost: $150,000.00

22. Available FAS Funds: $ sufficient

23. Date Match Money is Available: on demand by State after 7/1/69

24. Will there be any 100% County Money? Yes____ No X

25. Maximum Amount of 100% County Money Available: $_____

26. Date County Requests Letting: July 1, 1969

Remarks_____

RIGHT-OF-WAY- -

27. Is any additional right-of-way needed? Yes X No____

28. Will right-of-way be acquired by: Resolution____ or Deed X

29. Should State prepare options? Yes____ No X

30. Should State prepare centerline descriptions for acquiring right-of-way by resolution? Yes____ No X

31. Should material source site be included in right-of-way descriptions? Yes____ No X

32. Does project run inside city? Yes____ No X
(NOTE: If right-of-way is procured in community with post office or in a city, an opportunity for hearing must be afforded. [illegible].)

33. Are there any utilities (electric, water, gas, sewer, etc.) on private land? Yes____ No X
(NOTE: County must move all utilities located on present right-of-way.)

Remarks_____

CLR 61-8

RAILROADS- NONE

34. Location: _____

35. Name of Railroad: _____

36. Number of tracks: _____

37. Sight distance: _____(Left) _____(Right)

38. Number of trains_____

39. Angle of intersection_____

40. Type of crossing: Grade_____ Overcrossing_____ Undercrossing_____

41. Number of signs: Advance Warning_____ Crossbucks_____ Stop_____

Automatic Flashing_____ Automatic Bell_____ Gates_____

Remarks_____

STRUCTURES- NONE

42. Are there any structures to be replaced or altered? Yes_____ No_____

43. Will replacement by by: County_____ Contract_____
(NOTE: If by contract, fill out bridge questionnaire form.)

44. Will County adjust structure to new grade? Yes_____ No_____

45. Will County adjust structure to additional width? Yes_____ No_____

46. Will adjusted width be standard? Yes_____ No_____
(NOTE: Standard width of structure is 4 feet wider than wearing surface width. If structure is of substandard width, County must sign same to satisfaction of Bureau of Public Roads.)

Remarks_____

_____

47. Is project contingent upon other factors? Yes_____ No X

48. Such as: (a) Construction (Cooperative project by County, tie-in with outside projects)

Explain:_____

_____

_____

_____

Ref 31-8

49. (b) Timing (Cooperative project by County, finance, irrigation, industrial usage, outside projects)

Explain: _____

_____

_____

_____

50. (c) Surveys (Coordination with outside surveys)

Explain: _____

_____

_____

MISCELLANEOUS -

51. Does County wish rounding of cutbanks? Yes___ No___

52. Does County wish sight posts installed? Yes___ No X

53. Does County wish guard rail installed? Yes___ No X

54. Does County wish seeding and mulching incorporated into job?

Yes___ No X

NOTE: Approach fills for pile bent structures must be in place prior to bridge construction.

JACKSON County

June 7-16-68 Date

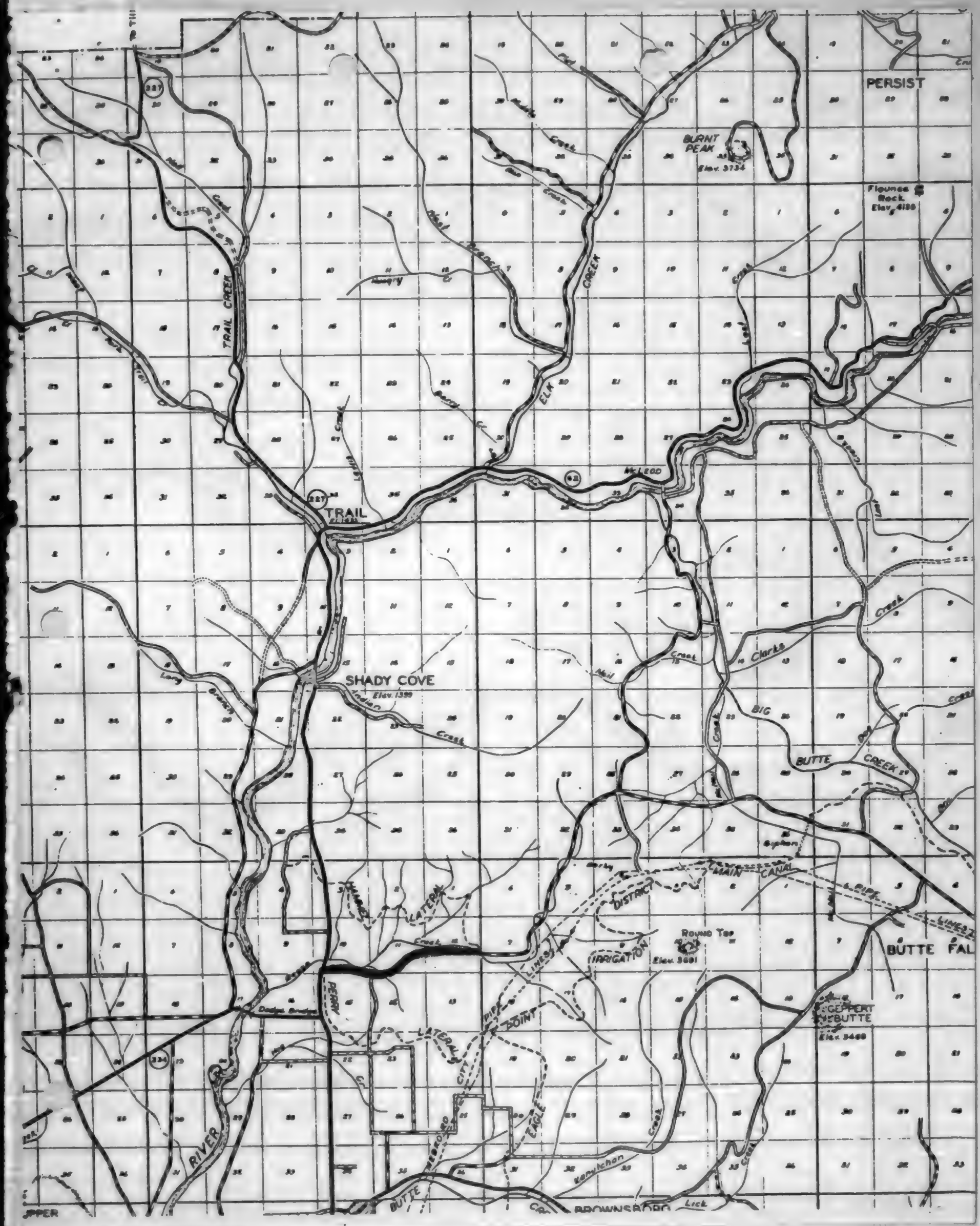
By Earl M. Miller
Judge or Commission Chairman

By Robert Carothers
County Engineer

Robert H Tunga
O.S.H.D. Field Engineer

Date 7-16-68

CCR w-8


PERSIST
BURNT PEAK
Elev. 3734
Flounce Rock
Elev. 4130
TRAIL CREEK
ELK CREEK
TRAIL
Elev. 1930
McLEOD
SHADY COVE
Elev. 1399
Indian Creek
BIG BUTTE CREEK
MAIN CANAL
DISTRICT
LATERAL
IRRIGATION
LINES
Round Top
Elev. 3681
BUTTE FAL
GEPPERT BUTTE
Elev. 3468
PIPE
POINT
Dodge Bridge
RIVER
BUTTE
Lick
BROWNSBORO

29-1115 Tillamook Bay Viewpoint Section 1969
of Oregon Coast Hwy. near Garibaldi.
#7292 (Grad., pav. and rdside. improve.)

CHA 3706

RECEIVED
MAR 25 1970
FOR FILING

27-115
7292

March 25, 1970

U. S. Fidelity and Guaranty Co.
Portland Office
201 Oregon Bank Building
Portland, Oregon 97204

Gentlemen:

A post-final payment for $450 will be made to All-City Landscape, Inc., on Contract No. 7292 for grading, paving, and roadside improvement on the Tillamook Bay Viewpoint Section of the Oregon Coast Highway in Tillamook County as soon as the warrant is prepared.

The total amount paid on this contract will be $14,467.34 including the post-final payment. Of the total $46.63 is for force account.

Very truly yours,

Floyd Cawry, Secretary
OREGON STATE HIGHWAY COMMISSION

fhm

cc All-City Landscape, Inc.
20 N. E. 148th Avenue
Portland, Oregon 97230

Frank Morgan
Ivan Merchant
V. E. Skeeg
Attn: John Kerr
R. D. Asbury

RECEIVED
APR 14 1970
FOR FILING

29-1115

7292

March 18, 1970

#5

All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

The State Highway Commission at its meeting on March 17, 1970, granted you an extension to October 15, 1969, on the early-phase completion date for Contract No. 7292 on the Tillamook Bay Viewpoint on the Oregon Coast Highway in Tillamook County. This extension eliminates liquidated damages.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cr

bc: F. D. Morgan
V. E. Skoog
R. D. Asburry
George Danforth

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7292 Contractor All City Landscape, Inc.

Highway Oregon Coast

Section Tillamook Bay Viewpoint

Kind of Work Grading, paving, and roadside improvement

It is recommended that the request for increase in the number of workdays within which to complete said contract be ~~DENIED~~ or GRANTED. The reasons for such recommendation are as follows:

Reasons stated by the contractor are essentially true, and it is recommended that this request be granted.

Stop work orders covered time
September 20 - 29, October 2 - 6 and
October 10 - 13.

George Danforth
Resident Br. Engineer

Recommended for Approval:

R. D. Asburry
Division Engineer

for Construction Engineer & Bridge Engineer

Assistant State Highway Engineer

Contract No.	
Project designation	State-Federal
Date awarded	
Work started	
Per cent completed	Date
No. of Workdays Allowed	
No. of Workdays Used	
No. of Added Workdays Requested	

State Printing 37980

E—220 (Rev.)—5M—5-69

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date February 2, 19 70

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from ..... days to 15 days, within which to complete our Contract No. 7292, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

We were granted a stop work order for 14 days by the Resident Engineer because of extremely wet weather. The one other day used was incidental to the 14 days.

Respectfully submitted,

All-City Landscape, Inc.
Contractor

By Clifford H. Paul
Clifford H. Paul

CONSENT OF SURETY

Date February 6, 1970

We, UNITED STATES FIDELITY AND GUARANTY COMPANY

....., as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

John D Minto
Attorney-in-fact John D. Minto (SEAL)

.....
Resident Agent

RECEIVED
MAR 6 - 1970
FOR FILING

29-1115
7292

March 3, 1970

Oregon State Highway Commission

Gentlemen:

Request for Extension of Time
No. 3
March 17, 1970 meeting

All-City Landscape, Inc., has requested a 15-day time extension on the Tillamook Bay Viewpoint roadside development on the Oregon Coast Highway in Tillamook County, Contract No. 7292. The request is based on three ordered stop work periods in the fall of 1969.

This was a comparatively small project contracted late in the 1969 construction season, and the fall rains interfered with the asphalt paving and concrete work to the extent that stop work orders were issued for three intervals of time totaling 15 days. The contract included an early phase completion requirement that all work except planting be completed by September 30. It was actually completed October 13, so a 15-day extension would establish a new early-phase completion date which would eliminate liquidated damages that have been assessed in the amount of $630. The overall project was completed December 2, 1969, within the specified time.

I recommend that the early-phase completion date be extended to October 15, 1969. This was a State project.

This matter will be on the agenda for your consideration at the March 17 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Quary
R. L. Porter
F. B. Klaboe
V. D. Wolfe
F. D. Morgan
V. E. Skoog
R. D. Asburry

JAB:fw sr

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7292 Contractor All City Landscape, Inc.

Highway Oregon Coast

Section Tillamook Bay Viewpoint

Kind of Work Grading, paving, and roadside improvement

It is recommended that the request for increase in the number of workdays within which to complete said contract be ~~REFUSED~~ GRANTED. The reasons for such recommendation are as follows:

Reasons stated by the contractor are essentially true, and it is recommend that this request be granted.

Stop work orders covered time September 20 - 29, October 2 - 6 and October 10 - 13.

George Danforth
Resident Br. Engineer

Recommended for Approval:

R. D. Asberry
Division Engineer

Construction Engineer or Bridge Engineer

Assistant State Highway Engineer

Contract No.	
Project designation	State-Federal
Date awarded	
Work started	
Per cent completed	Date
No. of Workdays Allowed	
No. of Workdays Used	
No. of Added Workdays Requested	

State Printing 57000

E—220 (Rev.)—5M—5-60

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date Febuary 2, 19 70

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from ..... days to 15 days, within which to complete our Contract No. 7292, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

We were granted a stop work order for 14 days by the Resident Engineer because of extremely wet weather. The one other day used was incidental to the 14 days.

Respectfully submitted,

All-City Landscape, Inc.
Contractor

By Clifford H Paul
Clifford H. Paul

CONSENT OF SURETY

Date February 6, 1970

We, UNITED STATES FIDELITY AND GUARANTY COMPANY

....., as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

John D Minto
Attorney-in-fact John D. Minto

(SEAL)

.....
Resident Agent

FORM S-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

February 19, 1970

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

SUBJECT: Tillamook Bay Viewpoint Section
Contract No. 7292
Request for Time Extension

All-City Landscape, Inc. requests a 15-day time extension because of three stop work orders on this project. This was a small ($14,771) project to improve a parking area and make a small roadside development with planting overlooking Tillamook Bay on the Coast Highway near Garibaldi. The completion requirement was by calendar date with two phases: (a) all work except the planting by September 30, 1969, and (b) all the work by December 31, 1969. Actual completion dates were October 15 on the early phase and December 2 overall, so the 15-day request only need apply to the early phase to change it to October 15, 1969.

Bids were opened on the project August 8 and the contract was submitted for signature on August 20. Heavy rains in September and October prevented AC paving and concrete work (walks and curbs) on three occasions. These were covered by stop work orders September 20 - 29, October 2 - 6 and October 10 - 13 for a total of 16 days. We therefore recommend the 15 days requested be extended on the early phase making a new completion date of October 15, 1969. This will eliminate the 15 days liquidated damages which have been withheld at the rate of $30 per day for a total of $450. This was a State project.

A rough draft letter to the Highway Commission is attached.

RECEIVED
FEB 24 1970
OFFICE OF
STATE HIGHWAY ENGINEER

F. D. Morgan
Construction Engineer

By John A. Bond

John A. Bond
Construction Administration Engineer

JAB:fw
Attach.
cc V. L. Gallagher

RECEIVED
FEB 2 - 1970
FOR FILING

22-1115

7292

February 2, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed December 2, 1969, on Contract No. 7292. The contract was with All-City Landscape, Inc., and was for grading, paving and roadside improvement on the Tillamook Bay Viewpoint Section of the Oregon Coast Highway in Tillamook County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective as of this date.

This matter will be on the agenda for confirmation at the February 3 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc Floyd Query
R. L. Porter
F. B. Kinboe
Victor D. Wolfe
V. E. Skoog
F. D. Morgan
L. H. Young
R. D. Asburry

srb fn

RECEIVED
FEB 2 - 1970
FOR FILING

22-1115
7292

February 2, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed December 1, 1969, on Contract No. 7292. The contract was with All-City Landscape, Inc., and was for grading, paving and roadside improvement on the Tillamook Bay Viewpoint Section of the Oregon Coast Highway in Tillamook County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective as of this date.

This matter will be on the agenda for confirmation at the February 5 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc Floyd Quary
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
V. E. Skoog
F. D. Morgan
L. H. Young
R. D. Asburry

srb fn

RECEIVED
FEB 3 - 1970
FOR FILING

22-1115
7292

February 2, 1970

U.S. Fidelity & Guaranty Co.
Portland Office
201 Oregon Bank Building
Portland, Oregon 97204

Gentlemen:

Contract No. 7292 awarded to All-City Landscape, Inc., for grading, paving, and roadside improvement on the Tillamook Bay Viewpoint Section of the Oregon Coast Highway in Tillamook County was completed on December 2, 1969, and accepted by the Highway Commission on February 2, 1970.

Final payment in the amount of $883.85 will be released to the contractor after February 9, 1970. The total contract amount is $13,957.34 including $46.63 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Quary, Secretary
OREGON STATE HIGHWAY COMMISSION

ej

cc All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

bc Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
R. D. Asburry

29-1115
7292

FORM S-1 (REV 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Tillamook Bay Viewpoint		WEEK ENDING: Nov. 29, 1969
		SECTION PREFIX: 29-1115
HIGHWAY: Oregon Coast		COUNTY: Tillamook
NAME OF JOB: Tillamook Bay Viewpoint	KIND OF WORK: Grading, paving, roadside improvement	
CONTRACTOR: All City Landscape, Inc.	CONTRACT NUMBER: 7292	FEDERAL AID PROJECT NUMBER: (state)
DATE OF CONTRACT: Aug. 20, 1969	DATE WORK STARTED: Spt. 8, 1969	ESTIMATED COMPLETION DATE: Nov. 30, 1969
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $ 16,970.61	SPECIFIED COMPLETION DATE: Sept. 30 & Dec. 31, 1969	PERCENT OF TIME ELAPSED: 73
EXCLUSIVE OF ENGINEERING: $ 15,488.46	ENGINEERING AUTHORIZATION $ 1,482.15	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 98
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 14,249.47	ENGINEERING COST TO DATE $ 3,842.66	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 98
ESTIMATED PERCENT: OVERRUN / UNDERRUN 08 %	PERCENT OF AUTHORIZATION 260 %	DATE PROJECT WAS COMPLETED:

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Cloudy			
MONDAY	"			
TUESDAY	Part O'cast			
WEDNESDAY	"			
THURSDAY	Fair			
FRIDAY	"			
SATURDAY				

Morgan Routing
Docker
Bahr
Walker
Bachtle
Gibson

RECEIVED
DEC 1 1969
CONSTRUCTION
DIVISION

BEN GIFFORD

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	No work all week
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

No work all week

SIGNED George Danforth LOCATION Tillamook

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

PRINTED
OREGON STATE
HIGHWAY DEPARTMENT

DIVISION 2

205 EAST SALEM HWY. BLDG. • SALEM, OREGON • 97310 • Phone 364-2171

27-1115
7212

October 21, 1969

Mrs. E. G. Richards
2792 S.W. Old Orchard Road
Portland, Oregon 97201

Subject: Tillamook Bay Viewpoint
Oregon Coast Highway

Dear Mrs. Richards:

Roy Olson has handed me your October 16 letter, plaque sketch and photographs about the Tillamook Bay Viewpoint. I am sorry to have missed participating in your September meeting.

Mr. Danforth believes the contract work other than plant establishment has been completed. I have not had the opportunity to check on this in the field and understand we may want to consider some additional pruning and planting. An inspection has been set for 1:15 P.M., October 30, in case you would care to participate.

As to the plaque which reads "Given to the People of Oregon for Their Enjoyment and As a Memorial to Lloyd J. and Imogen S. Wentworth By Their Children 1969", it should be sent to George Danforth. His Tillamook mailing address is Box 169 or it may be sent by Tillamook-Portland Auto Freight.

We do not have people who are expert in mounting such plaques but since the Oregon Brass Works does not have men available, we will have one of our bridge crews set it. I am sure they could do a presentable job. Hopefully, we can inset the plaque sufficiently to prevent vandalism. The sketch you sent is being forwarded to Mr. Danforth for his use in making the necessary arrangements.

Possibly we will see you October 30. The primary purpose of that meeting again is to determine if the contractor's basic work is completed. This doesn't preclude having him or State forces do supplemental pruning and planting.

Very truly yours,

R. D. Asburry
Division Engineer

by
Gerald W. Wimer
Asst. Division Engineer

RECEIVED
OCT 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

GWW/cg
cc: L. P. Shaw
Roy Olson
George Danforth
R. S. Hawkins

RECEIVED
NOV 1 - 1969
FOR FILING

97-1115
7292

Bid July 31

August 20, 1969

All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

The State Highway Commission on August 8, 1969, accepted your proposal for grading, paving and roadside improvement on the Tillamook Bay Viewpoint Section of the Oregon Coast Highway in Tillamook County for the sum of $14,771.50 and referred it to the State Highway Engineer with authority to award the contract as soon as a contribution from a pledged donor was received.

This contribution has been received and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7292.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The final completion date on this contract is December 31, 1969.

Very truly yours,

Floyd Cenery, Secretary
OREGON STATE HIGHWAY COMMISSION

cc
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Geibel (SAIF)
Roy Olsen
R. D. Asburry
W. Hoffman

RECEIVED
AUG 20 1969
FOI
29-1115
7292

August 20, 1969

Mrs. E. G. Richards
2792 S.W. Old Orchard Road
Portland, Oregon 97201

Dear Mrs. Richards:

Thank you very much for your check in the amount of $9,000 to be used in the viewpoint in memory of your parents. The check arrived in this morning's mail and we are, today, advising the contractor that the contract has been awarded to him.

Your very prompt response to my letter of August 15 is indeed appreciated.

Very truly yours,

Floyd Ousby, Secretary
OREGON STATE HIGHWAY COMMISSION

FO:aj

cc Forrest Cooper
R. L. Porter
Lloyd P. Shaw
F. B. Klaboe
L. M. Young
R. D. Asburry
V. E. Skoog (Attachment)

RECEIVED
AUG 18 1969
FILE
29-1115
7292

August 15, 1969

Mrs. R. O. Richards
2792 S.W. Old Orchard Road
Portland, Oregon 97201

Dear Mrs. Richards:

On May 29 Mr. Forrest Cooper, State Highway Engineer, wrote to you expressing the thanks of the Commission for your offer of a donation in construction of a viewpoint in Tillamook County. This contribution was to be made in the construction of a road, parking area, and other facilities and the placement of a plaque in memory of your parents, Lloyd J. and Imogen Wentworth.

Subsequently, bids were received for the construction of this project, and on August 11 we advised the contractor that the contract would be awarded to him as soon as the contribution had been received from you.

It is my understanding that it was your intent to donate $9,000 to this project. Receipt of this amount would be appreciated so that we can proceed with the construction work.

Very truly yours,

Floyd Omery, Secretary
OREGON STATE HIGHWAY COMMISSION

FO:mw

bc: Forrest Cooper
R. L. Porter
Lloyd P. Shaw
F. B. Klaboe
R. D. Asbury
L. H. Young
F. D. Morgan

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

August 15, 1969

Mrs. E. G. Richards
2792 S.W. Old Orchard Road
Portland, Oregon 97201

Dear Mrs. Richards:

On May 29 Mr. Forrest Cooper, State Highway Engineer, wrote to you expressing the thanks of the Commission for your offer of a donation in construction of a viewpoint in Tillamook County. This contribution was to be made in the construction of a road, parking area, and other facilities and the placement of a plaque in memory of your parents, Lloyd J. and Imogen Wentworth.

Subsequently, bids were received for the construction of this project, and on August 11 we advised the contractor that the contract would be awarded to him as soon as the contribution had been received from you.

It is my understanding that it was your intent to donate $9,000 to this project. Receipt of this amount would be appreciated so that we can proceed with the construction work.

Very truly yours,

Floyd Query

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

FQ:cr

NOTED
FLOYD QUERY

Mr. Query —
due to unfortunate circumstances the payment was delayed but Mr. Olson and Mr. Shaw have been kept informed both by me and my attorney —
Please be good enough to pass the check on to Mr. Stoop who is expecting it — We are very pleased the construction is ready to start — Sincerely Anne W. Richards.

RECEIVED
JUL 9 - 1969
FOR FILE
RECEIVED
JUL 3 - 1969
FOR FILE
29-1115
7292

July 3, 1969

Oregon State Highway Commission

Gentlemen:

Approval was granted for the development of a viewpoint memorial near Garibaldi in Tillamook County at the May 28 meeting.

Plans are complete for this Tillamook Bay Viewpoint on the Oregon Coast Highway and we have received a promissory donation of $9,000 from the family of Mr. and Mrs. Lloyd J. Wentworth. The estimated cost of construction for this project is $13,000; therefore, additional funds will be needed. These funds were originally requested on the program for Highway Beautification (319 b) money but, the amount required being rather minor, it is requested that we accomplish this work with State funds and use the 319 b money on larger projects.

I recommend this project and request an additional $4,000 in State funds to be added to the current State Construction Program for the construction of this memorial.

This matter will be on the agenda for the July 8 meeting.

Very truly yours,

cc: Floyd Query
R. L. Porter
Lloyd P. Shaw
F. B. Klaboe
Victor D. Wolfe
L. H.Young
D. J. Barbee (Attn: Roy Olson)
V. E. Skoog
R. D. Asburry

Forrest Cooper
State Highway Engineer

BLG:ia srb fn

RECEIVED
JUN 27 1969
F.O.K. Killborn
SUPERINTENDENT
B. W. Bishop
ASSISTANT SUPERINTENDENT
J. W. FERGUSON
DIVISION ENGINEER
29-1115
7292

Southern Pacific Company

251 UNION STATION, PORTLAND, OREGON 97209

June 23, 1969

IN REPLY PLEASE REFER TO

314

Mr. F. D. Morgan
Construction Engineer
State Highway Department
Salem, Oregon 97310

Attention: Mr. T. W. Litchfield
Utilities Liaison Engineer

Dear Sir:

Refer to your letter of May 28th regarding preliminary plans for Tillimook Bay Viewpoint on Oregon Coast Highway in Tillamook County.

Your preliminary plans show the construction of additional parking spaces, construction of sidewalk and two park bench tables above railroad tracks near Garibaldi. Inspection in the field determined that this viewpoint would be 40-50 feet above tracks and as a safety measure would recommend that either a fence or a railing be installed to restrict people from climbing down rock bluff to railroad tracks to get to Tillamook Bay. If no fence or barricade is installed, am sure there will be additional trespassing on railroad property.

Drainage from the viewpoint should be diverted so that it will utilize our existing culvert at MP 844.74.

Yours truly,

A W Killborn

Copies to FB Klarke
DJ Barrett
RD Abbuehl

Routing
Morgan
Docker
Bond
Walker
Boehme
Jeinsen
Poess
Swan
Glenn
Litchfield
Gallagher
Stein
RECEIVED
JUN 25 1969
CONSTRUCTION
DIVISION

RECEIVED
JUN 26 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 11 1969

FOR FILING
22-1115
7292

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 9, 1969

To: MEMO TO THE FILES

SUBJECT: Tillamook Bay Viewpoint
Oregon Coast Highway

A meeting was held with Mr. & Mrs. F. G. Richards on June 6, 1969, at 3:00 P.M. Vern Skoog, Jerry Wimer and I represented the Highway Department.

Skoog explained the mechanics of handling the money and that it would be earmarked for this particular project and if for any reason the project was not completed, the money would be refunded.

Wimer explained the method of awarding contracts and that the bids would have to be within a certain percentage of estimated cost to be awarded.

The planting would be done in the fall planting season which would probably be October. Mr. and Mrs. Richards were concerned about a dead tree and it was pointed out that we would remove dead material and prune branches as needed.

The Richards will order a plaque to be placed at the viewpoint. They will send a check to the Highway Department about the middle of July.

Roy Olson
Landscape Engineer

RO:ak

cc: Lloyd P. Shaw
G. W. Wimer
V. E. Skoog

NOTED
LLOYD P. SHAW

RECEIVED
JUN 9 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 2 - 1969
FOR FILING

29-1115
7292

May 29, 1969

Mrs. E. G. Richards
2792 S. W. Old Orchard Road
Portland, Oregon 97201

Dear Mrs. Richards:

On behalf of the Highway Commission, may I express our sincere thanks for your kind offer of a contribution toward the construction of a viewpoint in Tillamook County.

The County has agreed to make the necessary land available and the Department can utilize your donation, which I understand is $9,000, for the construction of roads, parking area, and other facilities.

The Commission will also authorize a plaque in the memory of your parents, Lloyd J. and Imogen Wentworth, at this location. The wording and mounting can be agreed upon at some future convenient time.

As soon as practicable after the contribution is received, the Highway Commission will commence work on the improvements and will be responsible for maintenance thereafter.

If you have any further questions, please call or write Mr. Lloyd P. Shaw, Assistant State Highway Engineer, State Highway Building, Salem 97310, telephone 364-2171, extension 1071.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Lloyd P. Shaw
Victor D. Wolfe
David G. Talbot
H. S. Cox
V. E. Shoog
R. D. Asburry

RO: /RLP:ms sr

29-1115
7292

OREGON STATE HIGHWAY DEPARTMENT

Salem Oregon

PUBLIC INFORMATION OFFICE PHONE 364-2171 Ext. 1501

NEWS RELEASE 69-109-S

FOR RELEASE AT HIGHWAY COMMISSION MEETING May 28, 1969

The Oregon State Highway Commission today confirmed approval of an agreement with the family of Lloyd J. Wentworth and Tillamook County for the establishment of a memorial viewpoint near Garibaldi on the Oregon Coast Highway (US101) in Tillamook County.

Mrs. E. G. Richards, daughter of L. J. Wentworth, indicated that the family was ready to contribute financially toward the establishment of the memorial. Tillamook County, which owns the land on which the viewpoint is to be located, has indicated its willingness to cooperate in the project. The State Highway Commission would assist in the construction and development of the viewpoint.

Total cost of the project is expected to be $11,000, with the Wentworth family contributing approximately $9,000 of this.

# # # # # # # # #

RECEIVED
MAY 9 - 1969
FILED
29-1115
7292

May 9, 1969

Oregon State Highway Commission

Gentlemen:

The family of Lloyd J. Wentworth, acting through George Ruby, a member of the State Parks and Recreation Advisory Committee, have inquired into the possibility of establishing a memorial to their parents. Their stated preference was something along the lines of the Collier Memorial at Collier State Park.

Contact with Mrs. E. G. Richards, daughter of L. J. Wentworth, indicates that the family would look with favor upon contributing approximately $9,000 of an estimated total cost of $11,000 toward construction of a viewpoint near Garibaldi in Tillamook County if the area could be designated as a memorial. Because most of the land on which the viewpoint would be constructed is owned by Tillamook County, we feel that a triple recognition of development of the area would be necessary: State Highway Commission, Tillamook County, and the Wentworth family.

Mr. Shaw discussed with Mrs. Richards the matter of including Tillamook County as a contributor in providing the viewpoint and she indicated this would be satisfactory. The Tillamook County Court, by a telephone call to Mr. Shaw on April 18 from Commissioner Schulmerich, stated that it is in accord with the Wentworth memorial proposal.

The matter was approved by Chairman Jackson on May 8 and will be on the agenda for your confirmation at the May 28 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Lloyd P. Shaw
Victor D. Wolfe
David G. Talbot
V. E. Skoog
R. D. Asburry

LPS:ajw/RLP:ms sr

39-1115
7292

April 21, 1969

Oregon State Highway Commission

Gentlemen:

The family of Lloyd J. Wentworth, acting through George Roby, a member of the State Parks and Recreation Advisory Committee, have inquired into the possibility of establishing a memorial to their parents. Their stated preference was something along the lines of the Collier Memorial at Collier State Park.

Contact with Mrs. E. G. Richards, daughter of L. J. Wentworth, indicates that the family would look with favor upon contributing approximately $9,000 of an estimated total cost of $11,000 toward construction of a viewpoint near Garibaldi in Tillamook County if the area could be designated as a memorial. Because most of the land on which the viewpoint would be constructed is owned by Tillamook County, we feel that a triple recognition of development of the area would be necessary: State Highway Commission, Tillamook County, and the Wentworth family.

Mr. Shaw has discussed with Mrs. Richards the matter of including Tillamook County as a contributor in providing the viewpoint and she indicated this would be satisfactory. The Tillamook County Court made known its feeling by a telephone call to Mr. Shaw April 18, Commissioner Schulmerich stating that the Commissioners were in accord with the Wentworth memorial proposal.

I am not aware of an established policy in matters of this kind. Will you please advise me if we should continue discussions with the Wentworth family.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc R. L. Porter
Lloyd P. Shaw
Victor D. Wolfe
David Talbot

LPS:ajw fn

BY Johnson 7:30 AM 8-69 Route Approved Agreement

The matter was approved by Chairman Vanderzanden on May 6 and will be on the agenda of the May 24 meeting for your confirmation. RLP

LLOYD J. WENTWORTH (1872-1959)

Born in Michigan

Father of Mrs. Richards

Was in lumber business in Portland many years.

Owned a Portland Lumber Yard at Portland; also at Eugene, Cathlamet, and Oric, California.

Owned and operated lumber yards in northern California.

He was one of the first chairmen of the Oregon Liquor Commission.

Served: In Legislature, House of Representatives

P.G.E. Board of Directors

Chairman, Holiday Park (former Hannemon) Hospital

Head of War Production Board, World War I, building wooden ships at Portland

Probably helped Forestry Building in Portland

P. B. Arensmeier
County & City Division

PBA:mm
4/17/69

APR 24 1969

FOR FILE

29-1115

7292

4 hw

MISC. CONTRACTS and AGREEMENTS No. 3706

3-11-69

March 13, 1969

Board of County Commissioners
Tillamook County
Courthouse
Tillamook, Oregon 97141

Attention: June Wagner
County Clerk

Gentlemen:

Attached for your files is a fully executed copy of an agreement granting the State the right to use County-owned property adjacent to the Oregon Coast Highway in the vicinity of Garibaldi to develop a viewpoint overlooking Tillamook Bay.

We have retained a fully executed copy of this agreement for the Commission's files.

Very truly yours,

Floyd Cassy, Secretary
OREGON STATE HIGHWAY COMMISSION

fkm
Attachment

cc H. S. Cox
(conformed agreement attached)

RECEIVED
MAR 5 - 1969
FOR FILING

29-1115
1272

March 4, 1969

Oregon State Highway Commission

Gentlemen:

Presented for your consideration at the March 11 meeting will be a Land Use Agreement with Tillamook County granting the State the right to use County-owned property adjacent to the Oregon Coast Highway in the vicinity of Garibaldi.

The agreement stipulates that the State may use County property, for as long as required for public use, to develop a Tillamook Bay viewpoint with vehicle parking area, picnic tables, and landscaping. Provision is also made for this agreement to become null and void if construction of the project is not undertaken within two years following execution of the agreement.

Approval of this agreement will allow development of a viewpoint overlooking Tillamook Bay which may be used by the traveling public in a safe and enjoyable manner and will eliminate an unsightly area which creates hazardous traffic conditions. Construction financial approval is not requested at this time. However, it will cost about $13,000 to develop the site and we expect to receive 100 percent federal landscape funds for the work.

I recommend your approval and request authority for the Secretary to sign the agreement for and on your behalf.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

cc Floyd Query
F. B. Klaboe
Victor D. Wolfe
D. J. Barbee
D. H. Moehring
R. E. Olson
H. S. Cox
R. D. Asburry

MCH:eb fn

RECEIVED
MAR 12 1969
FOR FILES

29-1115

7292

MEMO TO FILES: January 24, 1969

Tillamook Bay Viewpoint
Oregon Coast Highway
Tillamook County

At the request of Mr. Wimer, I met with him and Messrs. Schulmerich and Brennan of the Tillamook County Board of Commissioners on Monday, January 20. The purpose of the meeting was to discuss the contents of the attached letter from Frank Hall to R. D. Asbury.

After discussing the matter both in the courthouse and on the viewpoint site, Mr. Schulmerich informed us that he would take up the proposal at the County's next Board meeting on Wednesday, January 22, and would inform us of the Board's decision.

Mr. Schulmerich called this office on January 24 and stated that it was the decision of the Tillamook Board of County Commissioners that they would make the County's property available to the State for development of the Tillamook Bay Viewpoint proposal. They felt, however, that it would be in the best interests of the County if the availability of the property be by use-permit only with the County retaining title to the property.

If this arrangement is satisfactory, the County and City Division will draw up an agreement covering the proposal.

R. H. Prange
Field Engineer
County and City Division

NOTED
F. B. KLABOE

RHP:eb
Att.
cc F. B. Klaboe
Frank Hall
G. W. Wimer (Div. II)

RECEIVED
JAN 24 1969
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Office

10, 1969

SUBJECT: Tillamook Bay Viewpoint
Oregon Coast Highway

To: Mr. R. D. Asburry
Division Engineer
State Highway Department
205 East Salem Highway Bldg.
Salem, Oregon 97310

Enclosed is a sketch map and estimate for the Tillamook Bay Viewpoint proposal. Mr. Klaboe has approved this project and requests that Mr. Wimer contact Tillamook County and ascertain if they will donate the property required for the improvement to the State Highway Department with a public-use clause for the intended purpose.

The project is to be contracted as soon as funds become available sometime after July of this year.

NOTED
R. H. PRANGE

Frank L. Hall
FRANK L. HALL
Assistant Design Engineer

FLH/bdr
Enc. (sketch map and estimates)

Tillamook - 842 - 2112

L. C. Schulmerich - Chairman
R. E. Brennan - Commissioner
F. E. Knight - Commissioner

Co. Courthouse - 1:00 pm - 1-20-69

Met with county (Schulmerich & Brennan); Co. will probably give us use permit instead of deed.

RECEIVED
DIVISION ENGINEER - Division No. 2
JAN 18 1969
ROUTING
ASBURRY ☐ WIMER ☐ BOYD ☐
CANFIELD ☐ ☐ ☐

130-1143 N.W. 4th Ave.-Broadway (Milton- 1969
Freewater) Sec., Freewater Hwy.
#7293 (Grading and paving)

CAA-3550
KR-674

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JAN 19 1973
FOR FILING

files

7293

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

January 19, 1973
Salem, OR 97310

To: C. W. Head
Secretary

B U I L D I N G

SUBJECT: Construction Agreement
NW Fourth Avenue-Broadway
(Milton-Freewater) Section
Milton-Freewater Highway
Umatilla County
Contract No. 7293
PUX 734 SXF 494
PUX 735 SXF 495
PUX 736 SXF 486
R/W File: 39230

RAILROAD COMPANIES
FILE No. 674

With a copy of this letter, the above-captioned agreement with the Union Pacific Railroad Company is being distributed as indicated below.

The original is being handed to Velda De Guire in Mr. Moehring's office for processing. Please note in Section 1(b) the State is to pay the Railroad the sum of $825 as consideration for the easements granted by this agreement.

Please note this agreement provides for the alteration of the grade crossings near Fourth Avenue and Second Avenue and the removal of the tracks at Third Avenue. Details pertaining to these three grade crossings are set forth in Paragraph (2) of the RECITALS and Section 3(a). The allocation for the costs for the work at these three grade crossings is contained in Exhibit "C".

The Regional Office should become thoroughly acquainted with all portions of this agreement in order to insure that any operations by the State in this area are in conformance with this agreement.

T. W. Litchfield
Railroad and Utility Engineer

TWL:jly

cc: A. E. Johnson
C. T. Keasey
R. N. Bothman
L. E. George
V. E. Skoog
J. L. Sollis
W. E. Schwartz
H. W. Oswald
H. W. Oerlach

NOTED
C. W. HEAD

NOTED
FRAN NEAVOLL

GP°52470-784

RECEIVED

FOR FILING

7293

DATE March 2, 1972

TO Oregon State Highway Commission

FROM Tom Edwards
State Highway Engineer

SUBJECT Agreement
Union Pacific Railroad Company

On August 19, 1969, you executed a permit of entry with the Union Pacific Railroad Company providing for construction of the N. W. 4th Avenue-Broadway Section of the Freewater Highway in Milton-Freewater.

Bids for this project (Contract No. 7293) were opened on July 31, 1969, and it was completed on May 18, 1970.

This agreement provides for the alteration of three grade crossings in accordance with orders from the Public Utility Commissioner. The existing protection at the three grade crossings, which consists of two reflectorized crossbucks at each location, will not be upgraded as a result of this agreement.

The work for which the Railroad is to be reimbursed has been done and will cost the State approximately $15,000. In addition, the State must pay the Railroad $825.00 consideration for the easements granted.

Your approval is recommended. This will be on the agenda for your consideration at the April 4 meeting.

TWL:ia

bc Floyd Ouery
George M. Baldwin
F. B. Klaboe
A. E. Johnson
E. S. Hunter
F. D. Morgan
H. S. Cox — Gary Ross
T. W. Litchfield — Gary Sund

RECEIVED
AUG 27 1970
FOR FILING
130-1143
7293

August 27, 197.

Fireman's Fund Insurance Co.
921 S. W. Washington Street
Portland, Oregon 972.5

Attn: Fidelity and Surety Dept.

Gentlemen:

Contract No. 7293 awarded to Braden, Nelson & Herndon Construction Company for grading and paving on N. W. 4th Ave. and Broadway in Milton-Freewater on the Freewater Highway in Umatilla County was completed on May 18, 197., and accepted by the Highway Commission on August 26, 1970.

Final payment in the amount of $3,124.46 will be released to the contractor after September 2, 1970. The total contract amount is $56,464.64 and no work was performed unoer force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

kl

cc Braden, Nelson & Herndon Constr. Co.
22 West Alder
Walla Walla, Washington 99362

bc Frank Morgan
Ivan Merchant
V. E. Skoog
attn: John Herr
H. S. Coulter

RECEIVED
AUG 27 1970
FOR FILING

130 - 1143
7293

August 26, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed May 15, 1970, on Contract No. 7293. The contract was with Braden, Nelson and Herndon Construction Co. and was for grading and paving on the N. W. 4th Avenue-Broadway (Milton-Freewater) Section on the Freewater Highway in Umatilla County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective August 26, 1970, and that you concur in this procedure at the Commission meeting on September 29.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Query
Tom Edwards
A. E. Johnson
V. D. Wolfe
F. D. Morgan
I. D. Merchant
L. H. Young
V. E. Skoog-w/ltr.
H. S. Coulter

ms sr

RECEIVED
AUG 6 - 1970
FOR FILING
130-1145
7293

July 14, 1970

Braden, Nelson and Herndon Constr. Co.
22 West Alder
Walla Walla, Washington 99362

Gentlemen:

The State Highway Commission at its meeting on July 7, 1970, considered your request for an extension of 8 days on Contract No. 7293 for grading and paving N. W. 4th Avenue and Broadway in Milton-Freewater in Umatilla County.

The Commission granted you a three-day extension, to the date of completion, thereby eliminating all liquidated damages.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

sss

cc F. D. Morgan
V. E. Skoog
H. S. Coulter
C. D. Hiatt

FORM E-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 16, 1970

SUBJECT: N.W. 4th Ave.-Broadway (Milton-Freewater) Section
Contract No. 7293

To:
Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

Braden, Nelson and Herndon Construction Company, contractor on the subject project, requests an 8-day extension of time because of interference from a gas main early in the project. Because of the presence of the gas line, certain drainage work was re-designed so that the line would not have to be moved. The project was actually completed May 18, 1970 with 53 days accrued compared to 50 allowed, so there are only 3 days liquidated damages at $75 per day amounting to $225. Some pertinent dates are:

Bids opened	July 31, 1969)	
Contract awarded & mailed to contractor	August 26, 1969)	(26 days)
Revised contracts mailed to contractor (earlier ones contained some wrong sheets)	September 11, 1969	
Calendar workday count started	September 23, 1969	
Stop work order effective	October 11, 1969	
Resume work order	March 30, 1970	
Second stop work order (awaiting work by railroad at crossing)	May 8, 1970	
Resume work order	May 14, 1970	
Project completed	May 18, 1970	

We cannot confirm that the presence of the gas line and the re-designed drainage actually delayed the contractor. However, a delay in submitting the contract in excess of the 20 days allowed by specifications, Section 8-8, has ordinarily been recognized as a valid reason for extension. Time lost in starting a project often has the effect of substituting poor weather days for those originally intended as was true in this case even though the start of the day count was delayed. A minimum of 6 days extension can be allowed for this reason. The delay in award occurred because of time required for the City to submit its part of the project funding.

We therefore recommend a 3 calendar workday extension because of the delay in award, which will delete all liquidated damages. This was a State project. A rough draft letter to the Highway Commission is attached.

F. D. Morgan
Construction Engineer

By
John A. Bond
Construction Administration Engineer

JAB:fw
Attach.
cc: V. L. Gallagher

RECEIVED
JUN 17 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 22 1970
FOR FILING

130-1143
7293

June 19, 1970

Oregon State Highway Commission

Gentlemen:

Request for Extension of Time
No. 2
July 7, 1970 meeting

Braden, Nelson and Herndon Construction Company, contractor on the N. W. 4th Avenue-Broadway city allotment project in Hilton-Freeuster, Contract No. 7293, has requested an extension of the contract time because of an alleged interference from a gas line located within the project area. Because of the presence of the gas line, certain drainage work to be performed was redesigned so that the conflict with the line could be avoided. We cannot confirm that this relatively minor change in the drainage plan actually caused any delay to the contractor's progress.

There is another reason which does justify a time extension. Eight days longer than the time allowed by the specifications elapsed before the contract was submitted to the contractor for signature. This delay occurred while waiting for the City to make the necessary deposit for its share of the funding of the project.

The contract was completed May 18, 1970, with three days liquidated damages accruing in the total amount of $225. Because of the delay in submitting the contract, I recommend that a three-day time extension be granted which will delete all liquidated damages.

This matter will be on the agenda for your consideration at the July 7 meeting.

cc: Floyd Query
Forrest Cooper
F. B. Klaboe
V. D. Wolfe
F. D. Morgan
V. E. Skoog
H. S. Coulter

JAB:fw sr

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7293 Contractor Braden, Nelson & Herndon Const. Co.

Highway Freewater

Section N. W. 4th. Ave.-Broadway (Milton-Freewater)

Kind of Work Grading & Paving

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED**. The reasons for such recommendation are as follows:

Recommend 3 days for delay in award of the contract.

Recommended for Approval:

Alfred Shockley Jr.
Asst. Division Engineer

J. Stuart Bond
for Construction Engineer or Bridge Engineer

J. K. Moore
State Highway Engineer

Contract No.	7293
Project designation	State (State-Federal)
Date awarded	August 26, 1969
Work started	Sept. 26, 1969
Per cent completed	100% 5/18/70 (Date)
No. of Workdays Allowed	50 Calendar
No. of Workdays Used	53 Calendar
No. of Added Workdays Requested	8

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
in
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon 97310

Date May 5, 19 70

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 50 days to 58 days, within which to complete our Contract No. 7293, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows: September 23, 1969 thru September 30, 1969. When we were ready to begin work on September 23, it was found that there was a 4" gas main under the work area which necessitated a redesigning of the job before work could begin. A shutdown order was not issued until October 1, 1969, hence 8 days had been charged in which we could not proceed with work.

Respectfully submitted,

BRADEN, NELSON & HERNDON CONST. CO.
Contractor

By Clarence Braden
Managing Partner

CONSENT OF SURETY

Date May 5, 19 70

We, Fireman's Fund Insurance Co., as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Iris Giordano
Attorney-in-fact

(SEAL)

E. W. Ramsden
Resident Agent

130-1143 7293

No. 39 Final

FORM S-- (REV. 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: N. W. 4th. Ave.-Broadway	WEEK ENDING: June 13, 1970	
	SECTION PREFIX: 130-1143	
HIGHWAY: Freewater	COUNTY: Umatilla	
NAME OF JOB: N. W. 4th. Ave.-Broadway	KIND OF WORK: Grading & Paving	
CONTRACTOR: Braden, Nelson & Herndon Const. Co.	CONTRACT NUMBER: 7293	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: August 26, 1969	DATE WORK STARTED: Sept. 26, 1969	ESTIMATED COMPLETION DATE: May 18, 1970
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS: Work SPECIFIED CALENDAR DAYS: 50	WORK DAYS USED: Work CALENDAR DAYS USED: 53
PROJECT AUTHORIZATION: $ 85,450.20	SPECIFIED COMPLETION DATE:	PERCENT OF TIME ELAPSED: 106
EXCLUSIVE OF ENGINEERING: $ 77,987.30	ENGINEERING AUTHORIZATION: $ 7,462.90	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 68,532.82	ENGINEERING COST TO DATE: $ 11,928.30	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 99
ESTIMATED PERCENT: UNDERRUN 12 %	PERCENT OF AUTHORIZATION: 159 %	DATE PROJECT WAS COMPLETED: May 18, 1970

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		A.C. Paving
	100	100	100				100

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	0.28	0.28			0.28
MILES PARTIALLY COMPLETED	0	0			0
MILES COMPLETED	0.28	0.28			0.28
TOTAL ESTIMATED QUANTITIES (CONTRACT)	1,400 CY	875 CY			1,650 Ton
TOTAL QUANTITIES CORRECTED TO DATE	1,304 CY	966 CY			1,547 Ton
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	1,304 CY	966 CY			1,547 Ton
AVERAGE DAILY QUANTITIES This week	0	0			0
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME	0	0			0
NUMBER OF SHIFTS PER DAY	0	0			0
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES) NO STRUCTURES ON PROJECT

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Pt. fair			
MONDAY	Cloudy-rain			
TUESDAY	O'cast-showers			
WEDNESDAY	Ptly. fair			
THURSDAY	Pt. cloudy			
FRIDAY	Pt. cloudy			
SATURDAY				

Routing

RECEIVED
JUN 16 1970
CONSTRUCTION
DIVISION

BEN GIFFORD

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	No activity.
MONDAY	Two men in office on semi-final estimate.
TUESDAY	Two men in office on semi-final work.
WEDNESDAY	The semi-final estimate for this project was submitted to the Division Office today.
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

This will be the final report for this project.

SIGNED [signature] LOCATION Pendleton

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-F216

Council-Manager Government Since 1951

MILTON-FREEWATER

State of Oregon

PHONE 503-938-5531 CITY HALL, 722 SOUTH MAIN

Waimate
New Zealand

RECEIVED JUN 1 - 1970 OFFICE OF

130-1143
OFFICE OF MAYOR
7293 REFERRED TO Admin
BY SECRETARY

May 22, 1970

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Gentlemen:

On behalf of the City of Milton-Freewater, the completed construction of the Main Street project between Broadway and 4th Avenue has been inspected by our engineering department.

This letter will serve as acceptance by the City for the street so than funding arrangements may be completed.

Yours truly,

L. M. York
Mayor

HS:pb

cc: La Grande division, Highway Department

copies to Cot - Jones Morgan 5-28-70

RECEIVED MAY 27 1970 OFFICE OF STATE HIGHWAY ENGINEER

RECEIVED MAY 27 1970 OREGON STATE HIGHWAY COMMISSION

RECEIVED
NOV 21 69
FOR ....S

NOTED
F. B. KLABOE

OREGON STATE HIGHWAY DEPARTMENT

130-1143
7293

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

November 18, 1969

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: Grade Crossing Work
N. W. 4th Ave.-Broadway (Milton-Freewater) Section
Freewater Highway
Umatilla County
Contract No. 7293
YOUR FILE: D 9043-32-3

Gentlemen:

Your estimate for the improvement of your three (3) grade crossings on this project as submitted with the approved plans and your letter dated October 22, 1969, have been approved by the State. You are hereby authorized to proceed with the work as of November 18, 1969.

Please contact Mr. C. D. Hiatt, Resident Engineer, 216 S. W. Emigrant Avenue, Pendleton, Oregon 97801, Phone: 276-4435, at least three days prior to beginning work so that your activities may be coordinated with that of our contractor.

Reimbursement for work performed on and subsequent to November 18, 1969 will be made subject to the provisions of PPM 30-3 upon receipt of your statement of charges. Please be sure to include the beginning and completion dates of the work in the bill.

Very truly yours,

F. D. Morgan
Construction Engineer

By: ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

RECEIVED
NOV 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

TWL:ss

cc: F. B. Klaboe (w/attach.)
R. E. Simpson
V. L. Gallagher (2) (w/attach.)
V. E. Skoog "
H. S. Coulter (w/attach.) (2)
C. D. Hiatt "
H. M. Fillmore "

NOTED
F. B. KLABOE

Note to H. S. Coulter: Please have a State Force Order prepared and submitted for this work. Return one copy of estimate with SFO.

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

DEPARTMENT OF OPERATION

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

2125 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

OCTOBER 22, 1969

File Ref. D 9043 - 32 - 3

Routing: e

Morgan, Becker, Bond, Walker, Boehme, Johnsen

RECEIVED
OCT 23 1969
CONSTRUCTION DIVISION

Pease, Swan, Glenn, Litchfield, Gallagher, Stein

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Construction Plans - N.W. 4th Avenue - Broadway (Milton-Freewater) Section - Freewater Highway - Umatilla County

Attached herewith is one copy of plans, approved in behalf of Railroad's Chief Engineer, furnished with your letter of July 15.

Right-of-entry letter furnished to the State under date of August 6, 1969 was accepted and approved by the State on August 14, 1969. Section (5) of the right-of-entry letter indicates that a statement of work to be performed by the Railroad and the estimated cost thereof shall be furnished to you when prepared. Attached is a schedule of work contemplated under Section (5). Will you please secure Federal approval and furnish authorization for Railroad forces to perform said work?

Yours very truly,

W. G. Johnson

cc: Mr. Jack L. Sollis,
Utilities & Railroad Attorney
Oregon State Highway Department
Salem, Oregon 97310

Work to be done by Railroad Co. at Joint Railroad-State expense:

Description		Labor	Material	Total
Engineering				
Engineering Prelim.		$ 100	$	$
Labor Additives		35		
		135		
State prop'n. 57.14%		75		
O-WR&N Co. 42.86%		60		
Install Flange Rail thru		218	707	925
Crossing - ED-6, MP 36.21-S,	UPRR	92	303	395
N. E. 3rd Ave.	State	126	404	530
		254	306	560
Rehabilitate Track Section	UPRR	109	131	240
thru Crossing MP 36.21-S	State	145	175	320

Total State Cost, Crossing MP 36.21-S $925

Work to be done by Railroad Co. at Expense of State of Oregon:

Engineering	965		965
Install Flange Rail thru Crossing, ED-6, MP 36.22, N.W. 4th Ave.	218	707	925
Relay Rail thru Crossing ED-6, MP 36.22	254	576	830
Rehabilitate Track Section thru Crossing MP 36.22	254	306	560
Remove Existing Crossing, Etc., MP 36.22	360	100	460
Install Flange Rail thru Crossing - BMT, MP 36.22, N.W. 4th Ave. - ED-7	435	1,435	1,870
Rehabilitate Track Section thru Crossing MP 36.22	696	824	1,520
Remove Existing Crossing, Etc., MP 36.22	580	200	780

Total State Cost, Crossing MP 36.22 $7910

	Labor	Material	Total
Install Flange Rail thru Crossing - ED-4, MP 36.18-S Main St. & N. E. 2nd St.	$ 218	$ 707	$ 925
Relay Rail thru Crossing ED-4, MP 36.18-S	254	516	770
Rehabilitate Track Section thru Crossing, MP 36.18-S	254	306	560
Remove Existing Crossing, Etc., MP 36.18-S	360	100	460
Engineering Inspection	1,485	285	1,770

TOTAL STATE Cost Crossing MP 36.18-S $2715

SUMMARY

CROSSING MP 36.21-S	$ 925 —
CROSSING MP 36.22	7910 —
CROSSING MP 36.18-S	2715 —
ENGINEERING INSPECTION	1770 —
TOTAL COST	$13,320

APPROVED
V. E. SKOOG, Control

RECEIVED
SEP 29 1969

130-1143
1293

agenda 4a 8-19-69

September 8, 1969

RAILROAD COMPANIES
FILE No. 674

Union Pacific Railroad Company
Transportation Division
Department of Operation
2223 No. Larrabee Avenue
Portland, Oregon 97227

Attention: Mr. W. G. Johnson
Superintendent

Gentlemen:

Attached for your records is a fully executed copy of an agreement covering the alteration of three grade crossings on the N.W. 4th Avenue-Broadway (Milton-Freewater) Section of the Freewater Highway in Umatilla County.

Pages 7 and 8 which were originally missing from the agreement have been inserted and the agreement is now complete.

We have retained a fully executed copy of this agreement for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

sj
Attachment

cc Ted Litchfield
Jack Sollis

RECEIVED
NOV 1 - 1969
FOR FILING

130-1143
7293

Bid July 31

August 26, 1969

Braden, Nelson & Herndon
Constr. Co.
22 West Alder
Walla Walla, Washington 99362

Gentlemen:

The State Highway Commission on August 8, 1969, accepted your proposal for grading and paving on N.W. 4th Avenue-Broadway Section in the city of Milton-Freewater of the Freewater Highway in Umatilla County for the sum of $59,779 and referred it to the State Highway Engineer with authority to award the contract as soon as approval of the City of Milton-Freewater was received and the sum of $21,362 was deposited by the City.

Those conditions were fulfilled and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7293.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar workday count on this contract will begin September 8, 1969.

Very truly yours,

Floyd Emery, Secretary
OREGON STATE HIGHWAY COMMISSION

By
C. W. Head, Assistant Secretary

cr
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Geibel (SAIF)
H. S. Coulter
C. D. Hiatt

RECEIVED
SEP 3 - 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

130-1173
7293

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

August 25, 1969

City of Milton-Freewater
P.O. Box 109
Milton-Freewater, Oregon 97862

Attention: Mr. Henry Schneider
City Manager

Gentlemen:

Receipt is hereby acknowledged of your Warrant #03721 in the amount of $17,685.00, to cover City's agreed share towards cost of project on N.W. Fourth Avenue-Broadway Section of the Freewater Highway in Milton-Freewater.

We thank you for your interest and cooperation in this and other highway matters in your city.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

D. H. Harvell
Assistant County-City Engineer

DHH:lat

bc: F. B. Klabee
L. H. Young, take necessary action
V. E. Skeeg, w/check attached: Red _____ _____ date
H. S. Coulter
Floyd Query
Dave Mossbring, docds attached - file

NOTED
C. W. HEAD

NOTED
FLOYD QUERY

RECEIVED
AUG 18 1969
FOR FILING

130-1143
7293

August 18, 1969

Oregon State Highway Commission

Gentlemen:

There will be on the agenda for the August 19 meeting a Permit of Entry from the Union Pacific Railroad Company for the NW 4th Avenue-Broadway (Hilton-Freewater) Section of the Freewater Highway in Hilton-Freewater. Bids for this project were opened on July 31, 1969.

This agreement provides for the alteration of three grade crossings in accordance with orders from the Public Utility Commissioner. The existing protection at the three grade crossings, which consists of two reflectorized crossbucks at each location, will not be upgraded. However, additional advanced warning signs and pavement markings will be required. The total estimated cost to the State for this work will be approximately $15,000.

We recommend your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

TWL:ss mc
bc Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
F. D. Morgan (Attn: T. W. Litchfield)
L. H. Young
V. E. Skoog
Scott Coulter

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JUL 16 1969
FOR FILING

130-1143
1293

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 19, 1969

To: MEMO TO THE FILE

SUBJECT: Grade Crossings
N. W. 4th Ave.-Broadway (Milton-Freewater) Section
Freewater Highway
Umatilla County

NOTED
F. B. KLABOE

On May 13, 1969, a meeting was held in the City Council Chambers of the City of Milton-Freewater with the following persons present:

Henry Schneider, City Manager, City of Milton-Freewater
Jack D. King, Superintendent of Public Works, City of Milton-Freewater
J. R. Ritchie, Utility Engineer, Public Utilities Commission, Salem
G. M. Tabor, Public Projects Engineer, Union Pacific Railroad Company
Del L. George, Bridge Engineer, Northern Pacific Railroad Company, Seattle
K. E. Schneidmiller, General Manager, Walla Walla Valley Railway Co., Walla Walla
H. S. Coulter, Assistant Division Engineer, OSHD, La Grande
H. S. Cox, County & City Engineer, OSHD, Salem
L. C. Johnson, Resident Engineer, OSHD, Milton-Freewater
H. M. Fillmore, Field Utilities Liaison Engineer, OSHD, La Grande
T. W. Litchfield, Utilities Liaison Engineer, OSHD, Salem

This meeting was called by Mr. Ritchie of the Public Utility Commission for the purpose of discussing what additional protection might be afforded at the four (4) grade crossings within the above captioned project. After a field inspection of all the grade crossings, we returned to the Council Room and discussed the types of protection that might be installed at each grade crossing. It was noted in the field that the three (3) Union Pacific crossings were each protected by two PUC Standard No. 1 R Crossbucks, all in good condition. The WWVRR Crossing was not protected. There were advanced warning signs facing southbound traffic on Main Street North of 4th Avenue. This was accompanied by the standard RXR pavement markings. There was also an advance warning sign facing northbound traffic on Main Street south of N. E. 2nd Avenue. This was accompanied by standard RXR pavement markings. Standard stop bars were painted for northbound traffic south of the UPRR Spur crossing near N. E. 2nd Ave. and facing southbound traffic north of the WWVRR Crossing on Main Street.

Mr. Ritchie indicated that the installation of automatic protection was impractical at most of these crossings due to the fact there was no record of any accidents, the required circuitry to make them function properly would be excessively expensive, and this would be an extreme hardship on the City. He did indicate, however, that automatic protection may be in order at the main UPRR crossing between Robbins Street and 3rd Avenue. To better protect the other crossings various sorts of passive protection wre suggested, such as oversized advance warning signs, more pavement markings, the addition of a rider beneath the advance

warning sign indicating " 6 tracks", additional illumination, and the proper positioning of crossbucks to adequately protect the WWVRR crossing. The installation of stop signs at the various grade crossings was discussed, but both City and State people objected strenuously to this suggestion, pointing out it would cause far more rear end collisions than it would reduce train-vehicle accidents, especially since there have been no train-vehicle accidents.

The Union Pacific indicated that they were not interested in participating financially in any signalization. I indicated that the State would consider participating on a 50-50 basis with the Railroad in the installation of automatic protection at the Railroad's main line crossing of Main Street between Robbins Street and 3rd Ave. I indicated to Mr. Schneider that we would ask the City to bear half of the State's half, or 25% of the total cost of the crossing protection, if such were ordered. This crossing, incidentally, which is numbered 2H-36.23, ranks No. 12 out of the 209 grade crossings on the State highway system. The Union Pacific also indicated that they were not in favor of abandoning the spur line crossing North Main Street at 3rd Avenue. They stated that the owner of the property served by the track, Harris Food Industries, had objected to the proposed closure. It was also brought out that Harris Food has not been served a copy of the application to close this crossing. Since the meeting, this has been arranged through Mr. Sollis of our Legal Section.

The meeting adjourned shortly before noon with the following facts brought out:

1. The Railroads have until June 9, 1969 to answer the applications.

2. The train movements are sporadic, being much heavier in the month of August during the prune harvest.

3. The WWVRR will install new crossbucks but will not renew their tracks through the area, since it was done in 1964.

4. The UPRR will want to renew their track ties, ballast and surfacing throughout all three (3) crossings, which will add a material amount to the estimated cost of the proposed project.

5. The UPRR objects to the proposed closure of the grade crossing on 3rd Avenue, and the State will probably not press the issue further.

6. It does not appear that automatic protection will be required at any of the grade crossings, but this will not be known until the Railroads have answered the application and PUC has issued the orders for the alterations of the four crossings.

TWL:ss

T. W. Litchfield
Utilities Liaison Engineer

cc: F. B. Klaboe
D. J. Barbee
H. S. Cox
F. B. Crandall
H. S. Coulter
J. L. Sollis
L. C. Johnson
H. M. Fillmore

RECEIVED
JUL 9 1969
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section E. W. 4th AVE. - BROADWAY Highway FREEWATER (FAR 672) County UMATILLA Prefix 130-1434

Res. Engr. L. C. Johnson Approx. Length 0.28± Miles. Sta. _____ to Sta. _____ Date 3-20-69

Jean

Truck A.D.T. 216 Traffic Coefficient 8.0 18 kip s.a. per day 67.6.

Annual Precipitation 14"± Frost Penetration 30"±.

"NEW WORK"

(1)
Typical Soil
22 LL
0 PI
30 %P 10
15 %P200
70 %Gravel
7 %C Sand
8 %F Sand
12 %Silt
3 %Clay
54 "R" Value

3.20.69

2.0" of Asphaltic Concrete (Final Application)
3.5" of Asphaltic Concrete (Immediate)
4.0" of Plant Mix Bituminous Base
6.0" of Crushed Base

(1)
Silty Sand Gravel

	CBE Total Req.	Credit	Actual Thick.	
		4.0	2.0	AC(FA)
		7.0	3.5	AC(I)
		7.0	4.0	PMBB
		6.0	6.0	Cr. Base
18.5		24.0	*15.5	

AASHO CLASSIFICATION:
A-1-b

MATERIAL SOURCES:
To be determined by the Engineer.

See remarks on Page 3.

NOTED
F. B. KLABOE

RECEIVED
MAR 26 1969
130-1434
12213

cc:
P.P.S.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Assistant Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist

Submitted by E C Jean
for Staff Assistant

Recommended by J. C. Wilson
Asst. Engineer of Materials

Recommended by W. T. Oehler
Asst. Construction Engineer

Approved by F. B. Kloboe
Asst. State Highway Engineer

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section N. W. 4th AVE. - BROADWAY Highway PILOT ROCK Co. County UMATILLA Prefix 130-1484

Res. Engr. L. C. Johnson Approx. Length 0.28± Miles. Sta. _____ to Sta. _____ Date 3-20-69

Truck A.D.T. 216 Traffic Coefficient 8.0 18 kip s.a. per day 64.6.

Annual Precipitation 14"± Frost Penetration 30"±.

(1)
Typical Soil
22 LL
0 PI
30 %P 10
15 %P200
70 %Gravel
7 %C Sand
8 %F Sand
12 %Silt
3 %Clay
54 "R" Value

AASHO CLASSIFICATION:
A-1-b

MATERIAL SOURCES:
To be determined by the Engineer.

EXISTING ROADWAY
(Where Utilized)

2.0" of Asphaltic Concrete (Final Application)

3.5" of Asphaltic Concrete (Immediate) w/extra allowance for patching, leveling, etc.

IN PLACE

3.5" - 5.0" A.C. or Oil Patched

Variable depths of gravel base (As subgrade)

See remarks on Page 3.

CBE Total Req.	Credit	Actual Thick.	
	4.0	2.0	AC(FA)
	7.0	3.5	AC(I)
	IN PLACE Average		
		4.0"±	
	Variable depths.		
18.5	See section.		

SECTION: N. W. 4th AVE. - BROADWAY

HIGHWAY: FREEWATER

COUNTY: UMATILLA

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	P.M.B.B. or C.T.B.	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
6.0 - 7.0	3.0"	---	2.0"	10.0"	---	15.0"	*15.0"
4.8 - 6.0	2.0"	---	2.0"	11.0"	---	12.5"	*15.0"
Cars Only	2.0"	---	2.0"	11.0"	---	11.0"	*15.0"

Remarks:

* The base course has increased until the total surfacing thickness structure is equal to approximately ½ the depth of frost penetration.

The existing pavement is not in good condition, but the proposed overlay with the extra allowance should be good for a five-year design period.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0"	Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8"	Crushed Base
1.0"	Cement Treated Base	=	1.8"	Crushed Base
1.0"	Oil Mat	=	1.1"	Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8"	Crushed Base
1.0"	Lime Treated Subgrade	=	---"	Crushed Base

Above factors apply to materials that comply with Standard Specifications.

TRAFFIC ANALYSIS

SECTION: N. W. 4th AVE. - BROADWAY

HIGHWAY: FREEWATER

COUNTY: UMATILLA

5500 Present ADT (1969)

3 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	105	1.6	168	137	450	61,650
3	30	1.6	48	39	1000	39,000
4	5	1.6	8	7	1250	8,750
5	25	1.6	40	33	3180	104,940
6	---	---	--	--	2570	-----
				216	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 214,340

TWENTY YEAR EWL 4,286,800

TRAFFIC COEFFICIENT 8.0

SECTION: N. W. 4th AVE. - BROADWAY

HIGHWAY: FREEWATER

COUNTY: UMATILLA

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good _ X ___ Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A.C. or Oil
7. Stage Construction: Part of design
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: See remarks
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made as this is a short (o.28± mi.) project. Proposed plans are to widen an existing facility, utilizing the present roadway. A. C. is more desirable for this type construction.

RECEIVED
FEB 6 - 1969
FOR FILING

130-1143
1263

MEMO TO FILES: MILTON-FREEWATER
January 13, 1969

Tuesday, January 7, 1969, I met with Mr. Schneider, City Manager of Milton-Freewater, to discuss items of mutual interest on Freewater Highway No. 339. I immediately informed Mr. Schneider that the cooperative project (Broadway-4th) was scheduled for letting March 20, 1969. This information pleased him to some degree and opened the door for discussion of the Main Street-Robbins Street couplet as proposed by the City. Mr. Schneider solemnly assured me that, as far as the City was concerned, this was the greatest idea since sex and as such they were most anxious to test the idea on a trial basis as proposed by his letter of October 29, 1968. He did ask that plans for the present cooperative project be altered to provide a 50' curb to curb entry onto Robbins Street.

I told Mr. Schneider that the department could not expend any money on Robbins or on 8th between Robbins and Main as these streets were not on our highway system. I further told him that I "thought" the department would not be interested in any additional street with a railroad track to be placed on our system. I told him that I would endeavor to ascertain if the department would be willing to concur in the couplet on a "trial basis." One question: What if it works so well they won't want to go back to the original system? Mr. Schneider says they will want to prepare for the trial run just as soon as possible.

Milton-Freewater will be pushing for another cooperative project very soon, this one to be on 8th between Main and Lamb Streets, a distance of 1500' +/-. They will ask that the street be widened northerly. I reminded Mr. Schneider that the present cooperative had to wait until the State got some money, so possibly another project might be some time in the making. I would suggest before any new projects are seriously discussed that a definite understanding be determined regarding abandonment of all of Highway 339 within the city.

A problem exists at the corner of 8th and Lamb. Several accidents have occurred and the City asks that the State provide a "free right turn" at this intersection. They feel that this safety measure should be undertaken as soon as possible.

Mr. Schneider also discussed the angle parking problem on the westerly side of Highway No. 8 between SE 8th and 12th Streets. They feel that the main highway can have four traffic lanes if only parallel parking is permitted. In order to accomplish this, the City is considering widening the alley (parallel and westerly of our highway) and providing parking at the back of the stores. The area thus served would be between 10th and 12th. If this scheme has merit, it would appear that the seeds should be cultivated for future improvement of our highway.

1-31

H. S. Cox
County and City Engineer

HSC:mm

cc: F. B. Klaboe
D. J. Barbee
H. B. Coulter

RECEIVED
JAN 13 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 10 1968
FOR FILING

130-1143
7273

December 6, 1968

Oregon State Highway Commission

Gentlemen:

In April 1968, the Highway Commission and the City of Hilton-Freewater executed an agreement pertaining to the 4th Avenue-Broadway Section of the Freewater Highway. The agreement calls for the work to be financed 25 percent City-75 percent State. It is anticipated that the total cost will be approximately $55,000, making the State's share $41,250.

The agreement was conditioned to the effect that the project would not be undertaken until money was available. We believe that in the near future finances will permit this project to be started. Your authority is requested to place the 4th Avenue-Broadway Section in Hilton-Freewater on the current State Construction Program and advertise the project for bids as soon as plans can be prepared.

This matter will be on the agenda for your consideration at the December 17 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

cc Floyd Query
F. B. Klaboe
Victor D. Wolfe
L. H. Young
C. H. Maison
D. J. Barbee
F. D. Morgan
H. S. Cox
A. F. Parson

HLG:bb fn

RECEIVED
MAY 21 1968
FOR FILE

130-1143
7293

April 26, 1968

1951
1954

City of Milton-Freewater
City Hall
Milton-Freewater, Oregon 97862

Attention: Mr. R. L. Tomlinson
City Recorder

MISC. CONTRACTS AND AGREEMENTS No. 5550

4-23-68

Gentlemen:

Attached for your records is a fully executed copy of an agreement pertaining to the E. W. Fourth Avenue-Broadway Section of the Freewater Highway.

We have retained a fully executed copy for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

fhm
Attachment

cc Mr. H. S. Cox
(conformed copy)

RECEIVED
MAR 11 1968
FOREIGN
130-1143
7293

March 8, 1968

1937
1959

Oregon State Highway Commission

Gentlemen:

Presented for your consideration at the April 16 meeting will be a cooperative construction-finance agreement with the City of Milton-Freewater pertaining to the N. W. Fourth Avenue-Broadway Section of the Freewater Highway.

This agreement provides for construction of the project, relocation of utilities, parking restrictions, grade revisions, et cetera, within the city. Upon completion of the project, the City will assume maintenance, jurisdiction, and control of the portion of right-of-way, including sidewalks, lying outside the curb line of the project.

The project will basically consist of widening the existing facility to a 44-foot curbed section which will facilitate two lanes of traffic with parallel parking.

The project is estimated to cost $53,000 and the City has agreed to pay 23 percent of the total cost. The City is aware that construction of this project will be held in abeyance until construction funds are available.

We recommend your approval and request authority for the Secretary to sign the agreement for and on your behalf.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc Floyd Quary
R. L. Porter
Tom Edwards
F. B. Klaboe
Victor D. Wolfe
H. S. Cox
L. H. Young
F. D. Morgan
C. H. Maison
A. F. Parson

RU:eb fn

RECEIVED
DEC 19 1967
FILING
130-1143
7213

December 19, 1967

1937
1954

Mr. Henry Schneider
City Manager
City of Milton-Freewater
722 South Main
Milton-Freewater, Oregon 97862

Dear Mr. Schneider:

On September 14, I advised you that we would prepare a reconnaissance estimate for widening North Main Street between Broadway and 4th Streets.

This work has now been completed and it is our estimate that the cost of doing the work will account to $55,000. Railroad signalization may be required and is not included in this estimate.

As stated in my September 14 letter, the State Highway Commission has a policy of requesting the City to participate 25 percent of the cost of such projects. If you are interested in such a proposal, please let us know and we will discuss the matter with the Highway Commission.

The Department has a backlog of such projects, and it does not appear that the State would be in a position to finance this work immediately.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc R. L. Porter
F. E. Kiebee
Victor D. Volfe
F. E. Morgan
H. S. Cox
A. F. Parsons

FEK:srb fn

FORM E-59 6OM 10-65

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

December 1, 1967

SUBJECT: Assignment No. 1954-FBK
Main Street Improvement
City of Milton-Freewater

To:

Mr. F. D. Morgan
Construction Engineer
O F F I C E

ATTENTION: Mr. D. J. Barbee

I attach a memo by Mr. R. L. Lenz relating to the drainage pattern along Main Street in Milton-Freewater. Also included is a map of the affected area with elevations to indicate the slope of the ground and the probable direction of flow; the field's conception of the drainage pattern has been modified to fit the elevations as observed.

The field estimate was also reviewed and revised. A comparison between the field's cost and the revised cost is as follows:

	Field Cost	Revised Cost
Grade and Pave	$ 40,000	$ 55,000
Right of Way	- - - -	- - - -
Est. Const. Cost	$ 40,000	$ 55,000

Both estimates assume the utilization of the existing pavement; however, the field estimate does not include a half-sole over it. The revised estimate includes a half-sole over the old pavement and, of course, the usual 25 per cent and 40 per cent allowances as compared with 10 per cent and 20 per cent allowances as used by the field. Railroad signalization is not included in these estimates.

W. H. Tebeau
Preliminary Studies Engineer

WHT:fw
Attach.

RECEIVED
DEC 13 1967
OFFICE OF
STATE HIGHWAY ENGINEER

Milton-Freewater
Proposed Street Improvement
Drainage

MEMO TO THE FILES:

On Wednesday, November 15, 1967, a field inspection trip was made on the proposed project of widening North Main Street between Broadway and 4th Street in Milton-Freewater.

A level survey was run on North Main Street and all side streets which might have a bearing on the drainage pattern. The slope of the land runs very definitely to the north and to the west. The proposed drainage plan as submitted from the field is workable except for one change at 1st Street. Drainage was to be reversed from the middle of the block between 1st and 2nd streets back to 1st Street and then west on 1st Street, which would have been impractical because it would require overcoming about one & a half feet of grade by adversing the gutter grade for about 125 feet. This would throw the curb and curb and gutter into quite a hole at 1st Street which is entirely unnecessary. The drainage from 1st Street to the north on Main Street should cortinue on to the north.

Second Street was dead-ended to the west about 150 feet from Main Street by a circle drive around a trailer court. Should drainage be run down this street, it would run off to the north, directly to a railroad spur and along the railroad right-of-way. The drainage on Third Street to the west would also end up on railroad right-of-way. Any such plan would require agreement between the railroad and the city; otherwise, the drainage must be carried across the tracks and to the north. The drainage, upon reaching Robbins Street, would be directed down Robbins Street to the north. The city plans to pick it up at this point in the future and dispose of it via their own system.

The city of Milton-Freewater prefers to run their drainage down the gutters, through catch-inlet "bubblers" to cross the intersections, and on down the gutters again. The water then disappears down the side streets into the ground. The area is apparently underlain with gravels and could make an excellent disposal area for drainage waters. I believe that the use of sumps at the catch inlets as a practical means to dispose of the drainage should be investigated. If the plan were found to be feasible, and can be sold to the city, there could be a savings in culvert pipe and drainage excavation. Mr. Shirley, Asst. Division Engineer, remarked that the city does not like to use sumps, but he didn't say why.

Accompanying this report is a plan of the street with the field data placed upon it to indicate the slope of the ground and the probable direction of the drainage.

For the record, Mr. Shirley requested that we not become involved with the city engineer. All matters were to be handled with Henry Schneider, City Manager.

Richard L. Lenz
Hydraulics Engineer

FORM B-30 5CM 10-66

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 23, 1967

SUBJECT: Assignment No. 1954-FBK
Recon Estimate
Main Street
Milton-Freewater

To:
Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

Submitted herewith a reconnaissance estimate of the cost of widening North Main Street between Broadway and 4th Street in Milton-Freewater.

The estimate is in the amount of $37,165.00. Plan and profile of the proposed project is attached.

F. D. Morgan
Construction Engineer

FDM;fw
Enc.
cc A. F. Parson

RECEIVED
OCT 23 1967
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DEPARTMENT
QUANTITY SUMMARY & COST ESTIMATE

Sheet _____ of _____ Sheets

Section _____ Unit _____
Highway _____ County _____ Prefix _____
Length _____ Designer _____ Draftsman _____ Date 12-7-27

Grading and Surfacing Items

Item	Unit	Net	10% Allow	Gross	Price	Amount
1 Common Excav.	Cu.Yd.	1262	128	1390	1 00	1390
2. Trench Excav.	Cu.Yd.	130	15	145	6 00	870.
3. Extra for Wet Trench	Lin.Ft.	124	16	140	5 00	700.
4. Type C Catch Basin	each	2	1	20	125 00	2,500
5. Type C Curb	Lin.Ft.	213	32	240	45 00	10,800
6. Crush'd Rock in Base	Cu.Yd.	975	100	1075	2 70	2902 50
7. 3"-0 Asphalt in Base	Cu.Yd.	217	23	240	3 00	720
8. Watering	M.Gal	65	5	70	3 00	210
9. Mixer in Place Coat	Cu.Yd.	27	3	30	3 50	105
10. Keyhole in Place Coat	Ton	4	1	5	48 00	240
11. Class "F" Asphalt Conc.	Ton	694	70	764	9 35	7,067
12. 12" Sanitary Sewer	Lin.Ft.	110	10	120	9 00	1,080
13. 12" Storm Sewer	Lin.Ft.	280	28	308	4 50	1,386
						29,970 50
	Flagging, State's Share					1,000 00
	10% Eng. + Cont.					6,194 50

Total 37,165 00

BW
11-20

September 14, 1967

Mr. Henry Schneider
City Manager
City of Milton-Freewater
722 South Main
Milton-Freewater, Oregon

Dear Mr. Schneider:

Reference is made to your letter of August 28 concerning the widening of North Main Street between Broadway and 4th Street.

Mr. Alfred Shirley, Jr., Assistant Division Engineer at La Grande, has discussed the proposal with you. He informs me that he advised you that the State usually requires the city to participate in the amount of 25 percent of the cost of such projects. He also advised you that we have a backlog of this type of work and that it does not appear that the State Highway Department can undertake this work in the immediate future.

We will prepare a reconnaissance estimate of the cost and advise you as soon as the work has been completed.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc R. L. Porter
F. B. Klaboe - with file
Victor D. Wolfe
F. D. Morgan
H. S. Cox
A. F. Parson

FBK:srb fn

Klaboe checked with const. 10-13-67
BW
11-1-67

11-13-67
Gebeau has file & is having crew check out drainage in the field this week.
11-29
should have. Today or tomorrow.

1954

MILTON-FREEWATER
ALL AMERICA CITY

CAPITAL OF

Council-Manager Government Since 1938

CITY OF MILTON-FREEWATER

State of Oregon

5995

SEP 1 6

PHONE 938-5531
CITY HALL, 722 SOUTH MAIN

OFFICE OF
CITY MANAGER

REFERRED TO
Admin
BY SECRETARY

August 28, 1967

REFERRED TO
Salem
BY DEPUTY STATE HIGHWAY ENGINEER

State of Oregon
State Highway Department
Salem, Oregon 97310

Gentlemen:

The City of Milton-Freewater is extremely interested in upgrading the north business district situated on both sides of this State Highway.

As a part of this program it will be necessary to widen North Main Street, and add curbs and gutters, between Broadway and N. W. 4th. Street, as shown on the attached map.

Parker

The highway in this stretch needs to be upgraded due to the increased traffic and business requirements. Inadequate surface drainage has long worked a hardship to the businesses' fronting on this highway. Lack of curbs at the Union Pacific Railroad crossing is detrimental to pedestrians as south bound vehicles tend to drive over the corner of the sidewalk.

Request consideration of a project to widen, with curbs and gutters, that portion of North Main Street, between Broadway and N. W. 4th. Street in Milton-Freewater. This request is made under any authorization applicable for widening and improving a State Highway.

Sincerely,

Henry Schneider
City Manager

RECEIVED
AUG 31 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 31 1967
OREGON
STATE HIGHWAY COMMISSION

Enclosure: Map of Milton-Freewater
HS/pb

CAA-3550
RR-674

I-80N-6(36) Ladd Canyon Safety Rest Area 1969
268 Old Oregon Trail, S. of LaGrande
#7297 (Well construction)

RECEIVED
JUL 8 - 1970
FOR FILING

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

I-84(1)-(36)268
7297

June 25, 1970

Internal Revenue Service
P. O. Box 1285
Pendleton, Oregon 97801

Attention: Mr. G. A. Pfaff
Revenue Officer

Dear Mr. Pfaff:

Enclosed are two Highway Fund warrants totaling $1,631.78, earned by Stoffel Brothers Drilling Company and payable to the Internal Revenue Service under a levy made by you against Robert V. Stoffel d.b.a. Stoffel Brothers Drilling Company.

Warrant No. 40894 in the amount of $131.78 is for the "final" estimate on Contract 7297 while Warrant No. 40893 in the amount of $1,500.00 is on a "post-final" estimate for the release of liquidated damages previously charged to the contractor.

These two payments together with the payment on Estimate 1 previously sent to you, cover complete payment to the contractor on State Highway Contract 7297.

Very truly yours,

V. E. Skoog
Controller

By: ORIGINAL SIGNED BY
D. B. TAYLOR

D. B. Taylor
Assistant Controller

NOTED
FLOYD QUERY

cc: Floyd Query
Voucher File (2)

DBT:ms
Enclosures
cc: Stoffel Brothers Company
Rt. 1 Box 212
LaGrande, Oregon 97850

RECEIVED
JUN 25 1970
FOR FILING

I 30N-6(36)268
7297

June 25, 1970

Ohio Casualty Insurance Co.
155 North 3rd Street
Hamilton, Ohio 45011

Gentlemen:

A post-final payment for $1,900 will be made on Stoffel Brothers Drilling Company Contract No. 7297 for construction of a well in Lodd Canyon Hebdy Block Area on the Old Oregon Trail in Union County as soon as the warrant is prepared.

The total amount paid on this contract will be $3,088.00 including the post-final payment. Of the total $270.33 is for force account.

You have been previously advised of a Notice of Levy from the U. S. Treasury Department in the amount of $3,458.36 filed with us.

Very truly yours,

Floyd Curry, Secretary
OREGON WATER RESOURCES COMMISSION

fbm
cc Ohio Casualty Insurance Co.
Bill Baldwin, Branch Manager
915 S. W. Alder
Portland, Oregon 97205

Stoffel Brothers Drilling Co.
Route 1, Box 213
La Grande, Oregon 97850

Frank Morgan
Ivan Merchant
V. E. Skeen
Attn: John Kerr
H. S. Coulter

RECEIVED
JUN 16 1970
FOR FILING

I-80N-6(36) 268
7297

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 11, 1970

To: MEMO TO THE FILES

SUBJECT: Ladd Canyon Safety Rest Area
Well Drilling
Contract No. 7297

Under date of June 2, the Bureau of Public Roads has concurred in our interpretation of the contract time to be charged on this project. Under this interpretation, the contract was completed in 79 days out of the 120 days allowed. Therefore there will be no time liquidated damages to be withheld.

We are processing a post-final estimate to make this correction. This is not considered to be a time extension and will not be sent to the Highway Commission.

John A. Bond
Construction Administration Engineer

JAB:fw

cc: F. B. Klaboe
V. E. Skoog
H. S. Coulter
V. L. Gallagher

RECEIVED
JUN 12 1970
OFFICE OF
STATE HIGHWAY ENGINEER

DEC FEDERAL JUN 1 1970

UNITED STATES GOVERNMENT

Memorandum

FOR FILING

I-80N-6(36)268

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: June 2, 1970

In reply refer to: 08-35-DA

SUBJECT: Oregon I-80N-6(36)268
Ladd Canyon Safety Rest Area
Old Oregon Trail Highway
Well Construction

In regard to Mr. Klaboe's May 27 letter on the above project

I concur with your interpretation that the time for performance

should start as of the actual beginning of the work, i.e.

November 24, 1969.

6-5-70

REFERRED TO
By Asst. State Hwy. Engr.

Any further action needed?

cc Harry Young

RECEIVED
JUN 4 1970
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F. B. KLABOE

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

FORM S-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 22, 1970

SUBJECT: Request for Time Extension
Ladd Canyon Safety Rest Area
Well Construction
Contract No. 7297

To:
Mr. F. B. Klaboe
Assistant State Highway Engineer
B U I L D I N G

Stoffel Brothers Drilling requests a 55-day increase in the calendar days on the subject project. This is based on a narrative of the several problems encountered by the contractor in doing this work, including presence of boulders, large seams in the solid rock which lodged drilling equipment and time lost in trying to retrieve broken equipment.

This contract was negotiated after first receiving no bids and then rejecting a bid as being too high on a re-advertisement. One hundred twenty (120) days were allowed and the workday count was assumed to start August 25, 1969, this on the basis of Section 8-7 whereby time accrues 10 days after the contract is mailed to the contractor for execution. Work did not start until November 24 when 91 days had been counted. Even after that, most of the work was performed without benefit of the formal contract because it was not returned with the proper performance bond until March 20, 1970. The work was under a stop work order from February 24 to March 27 awaiting a decision on whether to do a little force account work which is discussed later. The project was completed on April 1, 1970 with 170 days accrued, 50 days of which was considered on liquidated damages at $30 a day amounting to $1,500 which has been deducted.

Because drilling was stopped at a shallower depth than planned (due to the lost drilling equipment) the contract underran 38 percent. After deduction of $1,500 liquidated damages, the remaining contract payment was $1,588.08.

The 5 days time that was counted after the resume work order was all spent on Extra Work Order No. 1 to surge the well with polyphosphate which treatment was recommended by our Geologists. Extension, if needed, is justified for this 5 days of added work.

RECEIVED
MAY 25 1970
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F. B. KLABOE

The well will not be used until new rest area facilities are constructed in the future.

The engineering overran about $270 which would be the value of 9 days liquidated damages, but some of this could be attributed to the Extra Work Order work. The remaining 45 days liquidated damages does seem harsh under the circumstances.

In pursuing the records a little further, we find the proposal or quotation was not signed (only the Anti-Collusion statement) and there was no proposal bond. Stoffel was contacted by our people for the quotation as he was local, but had not bid on either of the earlier formal invitations. These circumstances raised the pertinent question as to when we really had a contract. I discussed this with Mr. Lindas who now advises it would be when the work commenced (November 24). On that basis, there would be no late completion and no need for extension.

Since some other routine records have gone to the Bureau of Public Roads showing the longer day count, we need their concurrence on this interpretation. A rough draft for this purpose is attached.

F. D. Morgan
Construction Engineer

By
John A. Bond
Construction Administration Engineer

JAB:fw
Attach.
cc V. L. Gallagher

RECEIVED
MAY 27 1970
FOR

I-8(N-6(36)268
7797

May 27, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Post Office Box 300
Salem, Oregon 97308

Dear Sir:

Re: Contract Time, Ladd Canyon Safety Rest Area, Well Construction
Project No. I-80N-6(36)268

This contract was negotiated with your concurrence after two earlier attempts with formal bidding were unsatisfactory. The project is now completed and the well is capped for future use on a future rest area development project.

After reviewing the project records, we find that the contract completion time should be clarified. An unreasonable amount of time liquidated damages will be withheld (almost half of the contract value) if we assume that the time allowed would start to accrue ten days after the contract forms were submitted to Mr. Steffel. As the contract was not executed immediately nor the work started, considerable time elapsed during which no engineering charges were incurred on the part of the State. We do not believe it equitable to count the time for performance in this manner and, under the negotiated procedure followed, we find that it may not be enforceable.

We therefore ask your concurrence in our interpretation that the time for performance should start as of the actual beginning of the work, November 24, 1969. On this basis, the project was completed well within the 120 days allowed and, therefore, there would be no deduction for time liquidated damages. May we have your concurrence in this interpretation.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
V. E. Skoog
F. D. Morgan

JAB:fw srb

RECEIVED
MAY 22 1970
LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

507 State Highway Building

I-80N-6(36) 268
7297

May 21, 1970

John Bond
Construction Department
Room 212

Re: Contract #7297 - Well Construction
Assessment of Liquidated Damages

Dear John:

In light of all of the facts, as related to me, pertaining to negotiations for execution and performance of the above contract, I am of the opinion liquidated damages are not assessable for delays in the completion of the work contracted for.

Due to the many rare and significantly unusual factors attendant to all facets of this matter, I conclude the earliest date upon which it can be said there was an effective contract was the date upon which the contractor commenced work.

The count of the calendar days allotted for the completion of the work should not start prior to the date the contractor actually commenced work.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas
Assistant Attorney General
and Counsel to Highway Division

LIL:bg

cc - F. B. Klaboe

NOTED
F. B. KLABOE

RECEIVED
MAY 21 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 18 1970
FOR FILE

I-80N-6(36) 268
7297

May 13, 1970

Ohio Casualty Insurance Co.
136 North 3rd Street
Hamilton, Ohio 45011

Gentlemen:

Contract No. 7297 awarded to Stoffel Brothers Drilling Company for well construction in the Ladd Canyon Safety Rest Area on the Old Oregon Trail in Union County was completed on April 1, 1970, and accepted by the Highway Commission on May 12, 1970.

Final payment in the amount of $131.78 will be released to the contractor after May 20, 1970. The total contract amount is $3,088.08 including $270.33 for work performed under force account.

You have been advised previously that a Notice of Levy from the U. S. Treasury Department has been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

aj

cc Ohio Casualty Ins. Co.
Neal Baldwin, Branch Manager
Woodlark Bldg.
Portland, Oregon 97205

Stoffel Bros. Drilling Co.
Rt. 1, Box 212
La Grande, Oregon 97850

bc Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
H. S. Coulter

RECEIVED
MAY 13 1970

I-80N-6(3)218
7297

May 12, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed April 1, 1970, on Contract No. 7297. The contract was with Staffel Brothers Drilling Company and was for well construction on the Ladd Canyon Safety Rest Area Section of the Old Oregon Trail Highway in Union County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective May 12, 1970, and that you concur in this procedure at the Commission meeting on June 2.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
Ivan Marchant
F. D. Morgan
L. H. Young
H. S. Coulter

srb sr

RECEIVED
APR 24 1970
FOR FILE

I-80N-6(36)268

7297

April 24, 1970

Ohio Casualty Insurance Co.
136 North 3rd Street
Hamilton, Ohio

Gentlemen:

Contract No. 7297 for well drilling in the Ladd Canyon Safety Rest Area was awarded to Stoffel Bros. Drilling Co. July 31, 1969. However, the contract was not returned to us fully executed until March 23, 1970.

On December 4, 1969, a notice of levy from the U. S. Treasury Department was filed against the contract in the amount of $3,695.87. A revised notice in the amount of $3,451.38 was filed with us February 19.

The contract was completed April 1, 1970, but has not yet been accepted by the Commission. The final contract amount including a force account is $3,088.08. Liquidated damages have been assessed against the contractor in the amount of $1,500.00 to cover a 50-day delay in completion.

We provide this information to bring you up-to-date on the status of this contract.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

FQ:or

cc: Ohio Casualty Insurance Co.
Neil Baldwin, Branch Manager
Woodlark Building
Portland, Oregon 97205

FORM E-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

April 21, 1970

SUBJECT: Contract 7297
Stoffel Bros. Drilling Co.

To: Mr. Floyd Query
Secretary

B U I L D I N G

Pursuant to our conversation today regarding payments, monies due and work performed to date on this contract, the following summary is offered.

We have received and processed Estimate Number 1 Semifinal for work ending April 1, 1970. Pay items cover all bid items and total $2,817.75 plus Force Account work in the amount of $270.33 for a total of $3,088.08. Adjustment items include Liquidated Damages for 50 days at $30.00 per day for a total of $1,500.00. $131.78 is retained on this payment to be released on the Final Estimate. The payment due on Estimate Number 1 Semifinal after the above adjustments is $1,456.30.

I contacted Mr. V. L. Gallagher in the Construction Department and was advised that all work is now complete on this contract and to the best of his knowledge the only payment due at this time would be the retained amount of $131.78 unless some of the Liquidated Damages are retained in favor of the Contractor. He also advised the final estimate would not be processed for a month or possibly two.

We are in receipt of a Federal Tax Levy in the amount of $3,451.38 served on February 20, 1970 against Robert V. Stoffel, DBA Stoffel Bros. Drilling Co. Since the surety has not been notified of this levy against Stoffel Bros. we will withhold payment on this estimate in the amount of $1,456.30 until clearance from your office is received.

Very truly yours,

V. E. Skoog
Controller

By: A. J. Kahler
A. J. Kahler
Payroll Supervisor

AJK/md

RECEIVED
MAY 6 - 1970
FOR FILING

OREGON STATE HIGHWAY DIVISION

I-80N-6(36)268

7297

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

April 20, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon 97301

Contract 7297
Prefix 631-1064
FAP I-80N-6(36)268

Dear Sir:

All work under Contract No. 7297, Ladd Canyon Safety Rest Area Section of the Old Oregon Trail Highway in Union County, was completed on April 1, 1970.

We request that your office inspect the contract work and return two signed copies of this letter indicating acceptance or listing below any items or conditions of the contract which would prevent your final acceptance of the contract work.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. D. Morgan
Construction Engineer

RECEIVED
MAY 5 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Bureau of Public Roads
Oregon Division Office Endorsement

Date 4-30-70

Conditions noted on above date:

None

R. E. Simpson
Division Engineer

VG:fw

cc Forrest Cooper
F. D. Morgan

I-82N-6(36)268

STATE COPY

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

RECEIVED
APR 20 1970
OFFICE OF
STATE HIGHWAY ENGINEER

APPROVED EFFECTIVE DATE 4/21/70
Contingent upon modification of project agreement if additional funds are required
BY [signature]
TITLE Dist. Engineer
DATE 15 APR 1970
U. S. BUREAU OF PUBLIC ROADS

Project Name Ladd Canyon Safety Rest Area — Date Feb. 27, 1970
Highway Old Oregon Trail — Contract No. 7297
County Union — Prefix 631-1064
Contractor Stoffel Brothers Drilling Co. — F. A. Project No. I-80N-6(36)268
Address La Grande Rt 1 Box 212 97850 — Order No. 1

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Treat well with polyphosphate solution, Surge & Develope same.

NOTED
F. B. KLABOE

Location by station numbers:

150 ft. Lt. Sta. "WB" 341+ (La Grande – Ladd Canyon Section)

Estimate of quantities and cost:

Labor= $180.00
Equipment = 160.00
Material = 65.00
Total $405.00

NOTE: Complete estimate shown on letter of transmittal.

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Well water is cloudey due to a combination of bentonite seal residue and the natural clays in the water bearing formation. Previous water samples, submitted to the State Board of Health failed. Treatment is necessary to clean up this water.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$ 10,156.15	
Present estimate of project cost, including $ 405.00 for work under this order	$ 4,800.00	
Expected under-run ~~over-run~~ amount	$ 5,356.15	
Expected under-run ~~over-run~~ per cent	53%	

Submitted by: J.C. Hiatt by R. L. Tull
Resident Engineer

Approval Recommended: [signature]
Division Engineer

Approval Recommended: [signature]
for Construction—Bridge Engineer

Approved: [signature] 4-21-70

I-8(N)-6(36)268

7297

No. 14

C

FORM S-1 (REV. 12-64)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

	SECTION: Ladd Canyon Safety Rest Area	WEEK ENDING: February 27, 1970
		SECTION PREFIX: 631-1064
	HIGHWAY: Old Oregon Trail	COUNTY: Union
NAME OF JOB: Ladd Canyon Safety Rest Area	KIND OF WORK: Well Construction	
CONTRACTOR: Stoffel Brothers Drilling Co.	CONTRACT NUMBER: 7297	FEDERAL AID PROJECT NUMBER: I-80N-6(36)268
DATE OF CONTRACT: August 11, 1970	DATE WORK STARTED: November 24, 1970	ESTIMATED COMPLETION DATE: March 13, 1970
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS: 120	CALENDAR DAYS USED: 164
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED
PROJECT AUTHORIZATION: $ 10,156.15		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 84
EXCLUSIVE OF ENGINEERING: $ 9,269.15	ENGINEERING AUTHORIZATION $ 887.00	
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 3,500.00	ENGINEERING COST TO DATE $ 985.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 38
ESTIMATED PERCENT [OVERRUN/UNDERRUN]: 54 %	PERCENT OF AUTHORIZATION: 111%	DATE PROJECT WAS COMPLETED:

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 22	Fair			
MONDAY 23	Fair			
TUESDAY 24	Fair			
WEDNESDAY 25	Fair			
THURSDAY 26	Fair			
FRIDAY 27	Fair			
SATURDAY 21	Fair			

RECEIVED
MAR 2 1970
CONSTRUCTION
DIVISION

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

No Activity on this project all week. Extra work order No. 1, to cover the cost of surging this well[redacted], has been submitted for approval. This work will proceed as soon as it is authorized.

SIGNED J. C. Hiatt by: [signature] LOCATION La Grande

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-F216

RECEIVED
JAN 6 - 1970
FOR FILING
1-2-70

I-8-N-6(36) 265
7277

Floyd Z

Rec- a tel- call from a Mr. G.A. Pfaff, Rev. Officer in Pendleton re- partial release of levy on Stoffell Bros. Drilling Co.

He rec- your letter of Dec. 31st He said he is releasing anything in excess of $3,273.87 or $422.60 is being released.

If you have any questions, he said to call him at 276-3811 ext. 262 in Pendleton.

Cec H.

$3695.87
3273.87
422.00

1-5-70 Called Ron Taylor. He said Arnold Kahler had already caught the error in my letter

F.E.

NOTED
FLOYD QUERY

RECEIVED
DEC 31 1969
FOR FILING

December 31, 1969

U. S. Treasury Department
Internal Revenue Service
P. O. Box 1285
Pendleton, Oregon 97801

Attention: G. A. Pfaff

#7297

Gentlemen:

This is to acknowledge receipt of a Release of Levy which was served on us December 9, 1969, against Staffel Brothers Drilling Co., La Grande, in the amount of $3,695.87.

The Release form shows that $3,273.87 is released from the levy.

Levy was reduced in error to 3273.87

Very truly yours,

Floyd Omary, Secretary
OREGON STATE HIGHWAY COMMISSION

Filer

cc: Staffel Brothers Drilling Co.
Route 1, Box 212
La Grande, Oregon 97850

V. E. Skoog
Frank Morgan

NOTED ON CARD
12-31-69 CR

FORM 668-D
(REV. MAY 1967)

U. S. TREASURY DEPARTMENT - INTERNAL REVENUE SERVICE

RELEASE OF LEVY

To:

Oregon State Highway Commission
Highway Building
Salem, Oregon 97310

On the Ninth day of December 1969, a notice of levy was served upon you at Highway Building, Salem, Oregon, and demand was made for the surrender of all property, rights to property, moneys, credits, and bank deposits then in your possession, to the credit of, belonging to, or owned by Robert V. Stoffel
Stoffel Bros. Drilling Co.
of La Grande, Oregon, for unpaid internal revenue taxes together with additions provided by law which, at the time of the levy, amounted to the sum of $ 3,695.87.

Under the provisions of section 6343 of the Internal Revenue Code, property, rights to property, moneys, credits, and bank deposits in excess of the sum of $ 3,273.87 are hereby released from the levy.

Dated at Pendleton, Oregon this 29th day of December, 1969

SIGNATURE	TITLE
G. A. Pfaff	Revenue Officer

INTERNAL REVENUE CODE

SEC. 6343. AUTHORITY TO RELEASE LEVY AND RETURN PROPERTY

(a) Release of levy. - It shall be lawful for the Secretary or his delegate, under regulations prescribed by the Secretary or his delegate, to release the levy upon all or part of the property or rights to property levied upon where the Secretary or his delegate determines that such action will facilitate the collection of the liability, but such release shall not operate to prevent any subsequent levy.

U. S. GOVERNMENT PRINTING OFFICE : 1967 O - 166-040

RECEIVED
DEC 16 1969
FOR FILING

I-8ON-6(36)268
7297

December 16, 1969

U. S. Treasury Department
Internal Revenue Service
P. O. Box 1285
Pendleton, Oregon 97801

Attention: G. A. Pfaff

Gentlemen:

This is to acknowledge receipt in this office of a Notice of Levy in the amount of $3,695.87 against Stoffel Brothers Drilling Company of La Grande, Oregon.

Stoffel Brothers have been awarded Contract No. 7297 in the amount of $4,570 for well drilling in the Ladd Canyon Safety Rest Area. It is our understanding that the contractor has commenced work, but no monthly estimate has been processed to date.

Very truly yours,

Floyd Cuery, Secretary
OREGON STATE HIGHWAY COMMISSION

FC:sj

cc Stoffel Bros. Drilling Co.
Rt. 1, Box 212
La Grande, Oregon 97850

NOTED ON CARD
12-31-69 CR

bc V. E. Skoog
Frank Morgan

Several letters have been written to Stoffel Bros. and we were advised by telephone a few weeks ago that the contract was in the hands of their surety, but as of today, it has not been returned to this office.

FORM 668-A
(REV. FEB. 1967)

DATE
12-04-69

U. S. TREASURY DEPARTMENT — INTERNAL REVENUE SERVICE

NOTICE OF LEVY

TO
Oregon State Highway Department
Highway Building
Salem, Oregon 97310

ORIGINATING DISTRICT
Portland, Oregon

You are hereby notified that there is now due, owing and unpaid to the United States of America from the taxpayer whose name appears below the sum of → $ 3,695.87

TAX FORM NO.	PERIOD ENDED	DATE OF ASSESSMENT	IDENTIFYING NO.	UNPAID BALANCE OF ASSESSMENT	STATUTORY ADDITIONS	TOTAL
				$	$	$
1120	11-30-68	07-04-69	93-0569479	1,975.58	60.34	2.035.92
941	12-31-68	04-04-69	93-0569479	59.33	3.68	63.01
941	03-31-69	09-24-69	93-0569479	967.26	16.24	985.50
941	06-30-69	09-24-69	93-0569479	602.47	8.97	611.44
					TOTAL AMOUNT DUE	3,695.87

You are further notified that demand has been made for the amount set forth herein upon the taxpayer who has neglected or refused to pay, and that such amount is still due, owing, and unpaid from this taxpayer. Accordingly, you are further notified that all property, rights to property, moneys, credits, and bank deposits now in your possession and belonging to this taxpayer (or with respect to which you are obligated) and all sums of money or other obligations owing from you to this taxpayer, or on which there is a lien provided under Chapter 64, Internal Revenue Code of 1954, are hereby levied upon and seized for satisfaction of the aforesaid tax, together with all additions provided by law, and demand is hereby made upon you for the amount necessary to satisfy the liability set forth herein, or for such lesser sum as you may be indebted to him, to be applied as a payment on his tax liability. Checks or money orders should be made payable to "Internal Revenue Service".

SIGNATURE
G. A. Pfaff

TITLE
Revenue Officer

ADDRESS (CITY AND STATE)
Pendleton, Oregon

(Name and Address of Taxpayer)

Robert V. Stoffel
Stoffel Bros. Drilling Co.
Rt 1 Box 212
La Grande, Oregon

CERTIFICATE OF SERVICE

I hereby certify that this levy was served by delivering a copy of this notice of levy to the person named below.

NAME
Vernon E. Hay

TITLE
Controller

DATE AND TIME
4:45 PM 12-9-69

SIGNATURE OF REVENUE OFFICER
G. A. Pfaff

FORM 668-A (REV. 2-67)

PART 2 — TO BE RETAINED BY ADDRESSEE

EXCERPTS FROM THE INTERNAL REVENUE CODE

SEC. 6332. SURRENDER OF PROPERTY SUBJECT TO LEVY.

(a) REQUIREMENT.—Except as otherwise provided in subsection (b), any person in possession of (or obligated with respect to) property or rights to property subject to levy upon which a levy has been made shall, upon demand of the Secretary or his delegate, surrender such property or rights (or discharge such obligation) to the Secretary or his delegate, except such part of the property or rights as is, at the time of such demand, subject to an attachment or execution under any judicial process.

(b) Special Rule for Life Insurance and Endowment Contracts.

(1) In general.—A levy on an organization with respect to a life insurance or endowment contract issued by such organization shall, without necessity for the surrender of the contract document, constitute a demand by the Secretary or his delegate for payment of the amount described in paragraph (2) and the exercise of the right of the person against whom the tax is assessed to the advance of such amount. Such organization shall pay over such amount 90 days after service of notice of levy. Such notice shall include a certification by the Secretary or his delegate that a copy of such notice has been mailed to the person against whom the tax is assessed at his last known address.

(2) Satisfaction of levy.—Such levy shall be deemed to be satisfied if such organization pays over to the Secretary or his delegate the amount which the person against whom the tax is assessed could have had advanced to him by such organization on the date prescribed in paragraph (1) for the satisfaction of such levy, increased by the amount of any advance (including contractual interest thereon) made to such person on or after the date such organization had actual notice or knowledge (within the meaning of section 6323(i)(1)) of the existence of the lien with respect to which such levy is made, other than an advance (including contractual interest thereon) made automatically to maintain such contract in force under an agreement entered into before such organization had such notice or knowledge.

(3) Enforcement proceedings.—The satisfaction of a levy under paragraph (2) shall be without prejudice to any civil action for the enforcement of any lien imposed by this title with respect to such contract.

(c) ENFORCEMENT OF LEVY.—

(1) EXTENT OF PERSONAL LIABILITY.—Any person who fails or refuses to surrender any property or rights to property, subject to levy, upon demand by the Secretary or his delegate, shall be liable in his own person and estate to the United States in a sum equal to the value of the property or rights not so surrendered, but not exceeding the amount of taxes for the collection of which such levy has been made, together with costs and interest on such sum at the rate of 6 percent per annum from the date of such levy. Any amount (other than costs) recovered under this paragraph shall be credited against the tax liability for the collection of which such levy was made.

(2) PENALTY FOR VIOLATION.—In addition to the personal liability imposed by paragraph (1), if any person required to surrender property or rights to property fails or refuses to surrender such property or rights to property without reasonable cause, such person shall be liable for a penalty equal to 50 percent of the amount recoverable under paragraph (1). No part of such penalty shall be credited against the tax liability for the collection of which such levy was made.

(d) EFFECT OF HONORING LEVY.—Any person in possession of (or obligated with respect to) property or rights to property subject to levy upon which a levy has been made who, upon demand by the Secretary or his delegate, surrenders such property or rights to property (or discharges such obligation) to the Secretary or his delegate (or who pays a liability under subsection (c)(1)) shall be discharged from any obligation or liability to the delinquent taxpayer with respect to such property or rights to property arising from such surrender or payment. In the case of a levy which is satisfied pursuant to subsection (b), such organization shall also be discharged from any obligation or liability to any beneficiary arising from such surrender or payment.

SEC. 6334. PROPERTY EXEMPT FROM LEVY.

(a) ENUMERATION.—There shall be exempt from levy—

(1) Wearing Apparel and School Books.—Such items of wearing apparel and such school books as are necessary for the taxpayer or for members of his family;

(2) Fuel, Provisions, Furniture, and Personal Effects.—If the taxpayer is the head of a family, so much of the fuel, provisions, furniture, and personal effects in his household, and of the arms for personal use, livestock, and poultry of the taxpayer, as does not exceed $500 in value;

(3) Books and Tools of a Trade, Business, or Profession.—So many of the books and tools necessary for the trade, business, or profession of the taxpayer as do not exceed in the aggregate $250 in value.

(4) Unemployment Benefits.—Any amount payable to an individual with respect to his unemployment (including any portion thereof payable with respect to dependents) under an unemployment compensation law of the United States, of any State or of the District of Columbia or of the Commonwealth of Puerto Rico.

(5) Undelivered Mail.—Mail, addressed to any person, which has not been delivered to the addressee.

(6) Certain Annuity and Pension Payments.—Annuity or pension payments under the Railroad Retirement Act, benefits under the Railroad Unemployment Insurance Act, special pension payments received by a person whose name has been entered on the Army, Navy, Air Force, and Coast Guard Medal of Honor roll (38 U.S.C. 562), and annuities based on retired or retainer pay under chapter 73 of title 10 of the United States Code.

(7) Workmen's Compensation.—Any amount payable to an individual as workmen's compensation (including any portion thereof payable with respect to dependents) under a workmen's compensation law of the United States, any State, the District of Columbia, or the Commonwealth of Puerto Rico.

SEC. 6343. AUTHORITY TO RELEASE LEVY AND RETURN PROPERTY.

(b) Return of Property.—If the Secretary or his delegate determines that property has been wrongfully levied upon, it shall be lawful for the Secretary or his delegate to return—

(1) the specific property levied upon,

(2) an amount of money equal to the amount of money levied upon, or

(3) an amount of money equal to the amount of money received by the United States from a sale of such property.

Property may be returned at any time. An amount equal to the amount of money levied upon or received from such sale may be returned at any time before the expiration of 9 months from the date of such levy. For purposes of paragraph (3), if property is declared purchased by the United States at a sale pursuant to section 6335(e) (relating to manner and conditions of sale), the United States shall be treated as having received an amount of money equal to the minimum price determined pursuant to such section or (if larger) the amount received by the United States from the resale of such property.

APPLICABLE SECTIONS OF INTERNAL REVENUE CODE

6321. Lien for Taxes.
6322. Period of lien.
6325. Release of lien or discharge of property.
6331. Levy and distraint.
6332. Surrender of property subject to levy.
6333. Production of books.
6334. Property exempt from levy.
6343. Authority to release levy and return property.
7426. Civil actions by persons other than taxpayers.

FOR ADDITIONAL INFORMATION CONCERNING THIS NOTICE OF LEVY, PLEASE CONTACT THE PERSON WHOSE SIGNATURE APPEARS ABOVE —THE NAME AND ADDRESS OF TAXPAYER.

FORM S-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
December 11, 1969

To:

Mr. Floyd Query
Secretary
B u i l d i n g

SUBJECT: Notice of Levy by Internal Revenue Service
Robert V. Stoffel
Stoffel Bros. Drilling Co.
Black Canyon Safety Rest Area
Contract No. 7297

Attached hereto, pursuant to our telephone conversation today, are the Notice of Levy and copy of Federal tax liens, together with the Internal Revenue Service explanatory letter dated December 4, 1969. These were apparently served on Mr. Skoog on December 9.

As we discussed, the contractor and surety should be notified of this levy.

I understand that this is a newly awarded contract, and that the contractor just started work on or about November 24. If this is correct, the IRS should be so notified and advised that no money is yet due and payable, if this is in fact the case.

At such time as payments become due under this contract, it appears that they will have to be made to the IRS up to the amount of the levy - $3,695.87, unless the contractor, his surety or some other interested party obtains a judgment, decree or order to the contrary.

Alan H. Johansen

ALAN H. JOHANSEN
Staff Attorney

AHJ:rh
Encls.

cc: Mr. G. E. Rohde
Mr. V. E. Skoog
Mr. F. D. Morgan

U. S. TREASURY DEPARTMENT
INTERNAL REVENUE SERVICE
OFFICE OF THE DISTRICT DIRECTOR

12-04-69

IN REPLY REFER TO
FL-93
Code 1400

Oregon State Highway Department

Highway Building

Salem, Oregon 97310

FORM SEE NO.	PB-7317 & PB-7347
WHERE FILED	Secretary of State Salem, Oregon
NAME OF TAXPAYER	Robert V. Stoffel Stoffel Bros. Drilling co.

Enclosed is a copy of Form 668, Notice of Federal Tax Lien Under Internal Revenue Laws, which has been recorded against the above-named taxpayer in the State indicated.

Under the provisions of Section 6321 of the Internal Revenue Code, as quoted on the reverse side of Form 668, the United States claims a lien on all property or right to property, real or personal, now owned or subsequently acquired by the above-named taxpayer until the tax shown on Form 668 has been satisfied.

The authority for the statement that the lien of the United States attaches to the property subsequently acquired by the taxpayer is contained in a decision handed down for the United States by the Supreme Court in Glass City Bank of Jeanette, Pennsylvania v. United States (Nov. 13, 1945, affirming 146F (2d) 831, which had affirmed the 54 Fed. Supp. 111), 66 S. Ct. 108.

The lien of the United States provided for in Section 6321 applies to amounts due or to become due from you to the above-named taxpayer. You are, therefore, notified that until the Director of Internal Revenue advises you of the payment of the tax liability referred to on the attached notice of tax lien, the United States claims a prior lien on any amounts now due or which may become due to the above-named taxpayer. You are cautioned that before paying any amounts to the above-named, you should first determine that the lien of the United States has been satisfied.

Very truly yours,

G. A. Pfaff

G. A. Pfaff
Revenue Officer

Enclosure
Copy of Form 668

FL-93 (REV. 1-63)

Form 668 (REV. 8-67)

U. S. TREASURY DEPARTMENT - INTERNAL REVENUE SERVICE

NOTICE OF FEDERAL TAX LIEN UNDER INTERNAL REVENUE LAWS

For Optional Use By Recording Office

DISTRICT: Portland

SERIAL NO.: PB-7317

Pursuant to the provisions of Sections 6321, 6322 and 6323 of the Internal Revenue Code, notice is hereby given that there have been assessed under the Internal Revenue laws of the United States against the following-named taxpayer, taxes (including interest and penalties) which after demand remain wholly or in part thereof remain unpaid, and that by virtue of the above-mentioned statutes the amount of said taxes, together with penalties, interest, and costs that may accrue in addition thereto, is a lien in favor of the United States upon all property and rights to property belonging to said taxpayer.

COPY

NAME OF TAXPAYER

Robert V. Stoffel dba Stoffel Bros. Drilling Co.

RESIDENCE

Rt 1 Box 212, La Grande, Oregon 97850

CLASS OF TAX (Tax Return Form No.) (a)	PERIOD ENDED (b)	ASSESSMENT DATE (c)	IDENTIFYING NUMBER (d)	UNPAID BALANCE OF ASSESSMENT (e)
1120	11-30-68	07-04-69	93-0569479	1,975.58
941	12-31-68	04-04-69	93-0569479	59.33
			Plus dtat addns	
			Lien fee	1.00
PLACE OF FILING: Elections Division, Office of Secretary of State, Salem, Oregon			TOTAL	$ 2,035.91

COPY

WITNESS my hand at Portland, Oregon, on this,

the 7th day of October, 19 69

SIGNATURE	TITLE
R. V. Rushford /S/	Revenue Officer

(NOTE: Certificate of officer authorized by law to take acknowledgments is not essential to the validity of Notice of Federal Tax Lien G.C.M. 26419, C.B. 1950-51, 125.)

PART 1—To be retained by recording office

No._____

UNITED STATES

vs.

NOTICE OF TAX LIEN

Filed this _____ day of

_____, 19____, at ____ m.

_____

Clerk (or Registrar).

FORM 668 (REV. 8-67)

EXCERPTS FROM INTERNAL REVENUE CODE

SEC. 6321. LIEN FOR TAXES

If any person liable to pay any tax neglects or refuses to pay the same after demand, the amount (including any interest, additional amount, addition to tax, or assessable penalty, together with any costs that may accrue in addition thereto) shall be a lien in favor of the United States upon all property and rights to property, whether real or personal, belonging to such person.

SEC. 6322. PERIOD OF LIEN.

Unless another date is specifically fixed by law, the lien imposed by section 6321 shall arise at the time the assessment is made and shall continue until the liability for the amount so assessed (or a judgment against the taxpayer arising out of such liability) is satisfied or becomes unenforceable by reason of lapse of time.

SEC. 6323. VALIDITY AND PRIORITY AGAINST CERTAIN PERSONS.

(a) PURCHASERS, HOLDERS OF SECURITY INTERESTS, MECHANIC'S LIENORS, AND JUDGMENT LIEN CREDITORS.–The lien imposed by section 6321 shall not be valid as against any purchaser, holder of a security interest, mechanic's lienor, or judgment lien creditor until notice thereof which meets the requirements of subsection (f) has been filed by the Secretary or his delegate.

(b) PROTECTION FOR SECURITY INTERESTS EVEN THOUGH NOTICE FILED.–Even though notice of a lien imposed by section 6321 has been filed, such lien shall not be valid–

(f) PLACE FOR FILING NOTICE; FORM.–

(1) Place For Filing.–The notice referred to in subsection (a) shall be filed–

(A) Under State Laws.–

(i) Real Property.–In the case of real property, in one office within the State (or the county, or other governmental subdivision), as designated by the laws of such State, in which the property subject to the lien is situated; and

(ii) Personal Property.–In the case of personal property, whether tangible or intangible, in one office within the State (or the county, or other governmental subdivision), as designated by the laws of such State, in which the property subject to the lien is situated; or

(B) With Clerk Of District Court.–In the office of the clerk of the United States district court for the judicial district in which the property subject to the lien is situated, whenever the State has not by law designated one office which meets the requirements of subparagraph (A); or

(C) With Recorder Of Deeds Of The District Of Columbia.–In the office of the Recorder of Deeds of the District of Columbia, if the property subject to the lien is situated in the District of Columbia.

(2) Situs Of Property Subject To Lien.–For purposes of paragraph (1), property shall be deemed to be situated–

(A) Real Property.–In the case of real property, at its physical location; or

(B) Personal Property.–In the case of personal property, whether tangible or intangible, at the residence of the taxpayer at the time the notice of lien is filed.

For purposes of paragraph (2)(B), the residence of a corporation or partnership shall be deemed to be the place at which the principal executive office of the business is located, and the residence of a taxpayer whose residence is without the United States shall be deemed to be in the District of Columbia.

(3) Form.–The form and content of the notice referred to in subsection (a) shall be prescribed by the Secretary or his delegate. Such notice shall be valid notwithstanding any other provision of law regarding the form or content of a notice of lien.

(g) REFILING OF NOTICE.–For purposes of this section–

(1) GENERAL RULE.–Unless notice of lien is refiled in the manner prescribed in paragraph (2) during the required refiling period, such notice of lien shall be treated as filed on the date on which it is filed (in accordance with subsection (f)) after the expiration of such refiling period.

(2) PLACE FOR FILING.–A notice of lien refiled during the required refiling period shall be effective only–

(A) if such notice of lien is refiled in the office in which the prior notice of lien was filed; and

(B) in any case in which, 90 days or more prior to the date of a refiling of notice of lien under subparagraph (A), the Secretary or his delegate received written information (in the manner prescribed in regulations issued by the Secretary or his delegate) concerning a change in the taxpayer's residence, if a notice of such lien is also filed in accordance with subsection (f) in the State in which such residence is located.

(3) REQUIRED REFILING PERIOD.–In the case of any notice of lien, the term "required refiling period" means–

(A) the one-year period ending 30 days after the expiration of 6 years after the date of the assessment of the tax, and

(B) the one-year period ending with the expiration of 6 years after the close of the preceding required refiling period for such notice of lien.

(i) (3) DISCLOSURE OF AMOUNT OF OUTSTANDING LIEN.–If a notice of lien has been filed pursuant to subsection (f), the Secretary or his delegate is authorized to provide by regulations the extent to which, and the conditions under which, information as to the amount of the outstanding obligation secured by the lien may be disclosed.

SEC. 6325. RELEASE OF LIEN OR DISCHARGE OF PROPERTY.

(a) RELEASE OF LIEN.–Subject to such regulations as the Secretary or his delegate may prescribe, the Secretary or his delegate may issue a certificate of release of any lien imposed with respect to any internal revenue tax if–

(1) Liability Satisfied or Unenforceable.–The Secretary or his delegate finds that the liability for the amount assessed, together with all interest in respect thereof, has been fully satisfied or has become legally unenforceable; or

(2) Bond Accepted.–There is furnished to the Secretary or his delegate and accepted by him a bond that is conditioned upon the payment of the amount assessed, together with all interest in respect thereof, within the time prescribed by law (including any extension of such time), and that is in accordance with such requirements relating to terms, conditions, and form of the bond and sureties thereon, as may be specified by such regulations.

Form 668 (REV. 8-67)

U. S. TREASURY DEPARTMENT - INTERNAL REVENUE SERVICE

NOTICE OF FEDERAL TAX LIEN UNDER INTERNAL REVENUE LAWS

For Optional Use By Recording Office

DISTRICT: Portland

SERIAL NO.: PB-7347

Pursuant to the provisions of Sections 6321, 6322, and 6323 of the Internal Revenue Code, notice is hereby given that there have been assessed under the Internal Revenue laws of the United States against the following-named taxpayer, taxes (including interest and penalties) which after demand for payment thereof remain unpaid, and that by virtue of the above-mentioned statutes the amount of said taxes, together with penalties, interest, and costs that may accrue in addition thereto, is a lien in favor of the United States upon all property and rights to property belonging to said taxpayer.

COPY

NAME OF TAXPAYER

Robert V. Stoffel dba Stoffel Bros. Drilling Co.

RESIDENCE

Rt 2 Box 78, La Grande, Oregon 97850

CLASS OF TAX (Tax Return Form No.) (a)	PERIOD ENDED (b)	ASSESSMENT DATE (c)	IDENTIFYING NUMBER (d)	UNPAID BALANCE OF ASSESSMENT (e)
941	3-31-69	9-24-69	93-0569479	967.26
941	6-30-69	9-24-69	93-0569479	602.47
			Lien fee	1.00
			TOTAL	$ 1,570.73

COPY

PLACE OF FILING

Elections Division
Office of Secretary of State, Salem, Oregon

WITNESS my hand at Portland, Oregon, on this,

the 15th day of October, 1969

SIGNATURE	TITLE
/S/R.V. Rushford	Revenue Officer

(NOTE: Certificate of officer authorized by law to take acknowledgments is not essential to the validity of Notice of Federal Tax Lien G.C.M. 26419, C.B. 1950-51, 125.)

PART 1—To be retained by recording office

No._____

UNITED STATES

vs.

NOTICE OF TAX LIEN

Filed this_____day of

_____, 19____, at_____m.

_____

Clerk (or Registrar).

FORM 668 (REV. 8-67)

EXCERPTS FROM INTERNAL REVENUE CODE

SEC. 6321. LIEN FOR TAXES

If any person liable to pay any tax neglects or refuses to pay the same after demand, the amount (including any interest, additional amount, addition to tax, or assessable penalty, together with any costs that may accrue in addition thereto) shall be a lien in favor of the United States upon all property and rights to property, whether real or personal, belonging to such person.

SEC. 6322. PERIOD OF LIEN.

Unless another date is specifically fixed by law, the lien imposed by section 6321 shall arise at the time the assessment is made and shall continue until the liability for the amount so assessed (or a judgment against the taxpayer arising out of such liability) is satisfied or becomes unenforceable by reason of lapse of time.

SEC. 6323. VALIDITY AND PRIORITY AGAINST CERTAIN PERSONS.

(a) PURCHASERS, HOLDERS OF SECURITY INTERESTS, MECHANIC'S LIENORS, AND JUDGMENT LIEN CREDITORS.–The lien imposed by section 6321 shall not be valid as against any purchaser, holder of a security interest, mechanic's lienor, or judgment lien creditor until notice thereof which meets the requirements of subsection (f) has been filed by the Secretary or his delegate.

(b) PROTECTION FOR CERTAIN INTERESTS EVEN THOUGH NOTICE FILED.–Even though notice of a lien imposed by section 6321 has been filed, such lien shall not be valid–

(f) PLACE FOR FILING NOTICE; FORM.–

(1) Place For Filing.–The notice referred to in subsection (a) shall be filed–

(A) Under State Laws.–

(i) Real Property.–In the case of real property, in one office within the State (or the county, or other governmental subdivision), as designated by the laws of such State, in which the property subject to the lien is situated; and

(ii) Personal Property.–In the case of personal property, whether tangible or intangible, in one office within the State (or the county, or other governmental subdivision), as designated by the laws of such State, in which the property subject to the lien is situated; or

(B) With Clerk Of District Court.–In the office of the clerk of the United States district court for the judicial district in which the property subject to the lien is situated, whenever the State has not by law designated one office which meets the requirements of subparagraph (A); or

(C) With Recorder Of Deeds Of The District Of Columbia.–In the office of the Recorder of Deeds of the District of Columbia, if the property subject to the lien is situated in the District of Columbia.

(2) Situs Of Property Subject To Lien.–For purposes of paragraph (1), property shall be deemed to be situated–

(A) Real Property.–In the case of real property, at its physical location; or

(B) Personal Property.–In the case of personal property, whether tangible or intangible, at the residence of the taxpayer at the time the notice of lien is filed.

For purposes of paragraph (2)(B), the residence of a corporation or partnership shall be deemed to be the place at which the principal executive office of the business is located, and the residence of a taxpayer whose residence is without the United States shall be deemed to be in the District of Columbia.

(3) Form.–The form and content of the notice referred to in subsection (a) shall be prescribed by the Secretary or his delegate. Such notice shall be valid notwithstanding any other provision of law regarding the form or content of a notice of lien.

(g) REFILING OF NOTICE.–For purposes of this section–

(1) GENERAL RULE.–Unless notice of lien is refiled in the manner prescribed in paragraph (2) during the required refiling period, such notice of lien shall be treated as filed on the date on which it is filed (in accordance with subsection (f)) after the expiration of such refiling period.

(2) PLACE FOR FILING.–A notice of lien refiled during the required refiling period shall be effective only–

(A) if such notice of lien is refiled in the office in which the prior notice of lien was filed; and

(B) in any case in which, 90 days or more prior to the date of a refiling of notice of lien under subparagraph (A), the Secretary or his delegate received written information (in the manner prescribed in regulations issued by the Secretary or his delegate) concerning a change in the taxpayer's residence, if a notice of such lien is also filed in accordance with subsection (f) in the State in which such residence is located.

(3) REQUIRED REFILING PERIOD.–In the case of any notice of lien, the term "required refiling period" means–

(A) the one-year period ending 30 days after the expiration of 6 years after the date of the assessment of the tax, and

(B) the one-year period ending with the expiration of 6 years after the close of the preceding required refiling period for such notice of lien.

(i) (3) DISCLOSURE OF AMOUNT OF OUTSTANDING LIEN.–If a notice of lien has been filed pursuant to subsection (f), the Secretary or his delegate is authorized to provide by regulations the extent to which, and the conditions under which, information as to the amount of the outstanding obligation secured by the lien may be disclosed.

SEC. 6325. RELEASE OF LIEN OR DISCHARGE OF PROPERTY.

(a) RELEASE OF LIEN.–Subject to such regulations as the Secretary or his delegate may prescribe, the Secretary or his delegate may issue a certificate of release of any lien imposed with respect to any internal revenue tax if–

(1) Liability Satisfied or Unenforceable.–The Secretary or his delegate finds that the liability for the amount assessed, together with all interest in respect thereof, has been fully satisfied or has become legally unenforceable; or

(2) Bond Accepted.–There is furnished to the Secretary or his delegate and accepted by him a bond that is conditioned upon the payment of the amount assessed, together with all interest in respect thereof, within the time prescribed by law (including any extension of such time), and that is in accordance with such requirements relating to terms, conditions, and form of the bond and sureties thereon, as may be specified by such regulations.

STATE COPY

n Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-13		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT (PPM 21-7) 8-29-67	COUNTY
6		Union
		PROJECT NO. I-80N-6(36)268

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

Ladd Canyon Safety Rest Area on the Old Oregon Trail Highway

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	12-18-68	0.00
OTHER (Specify)		

FUNDS	
ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 5,027.00	$ 4,600.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By J. K. Klabo

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer AUG 2 8 1969

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

USCOMM-DC 26854-P66

Oregon State Highway Department

Federal Aid
Project No. I-80N-6(36)268

LADD CANYON SAFETY REST AREA ON THE

OLD OREGON TRAIL HWY. IN UNION COUNTY

Project Agreement Estimate.

Salem, Oregon, August 7, 1969

Type Code Y021
Well Construction (Sta. 335+00) 7297

Drilling 8-inch Well in Alluvium	100 lin. ft.	15.00	$1,500.00
Drilling 8-inch Well in Rock	100 lin. ft.	18.00	1,800.00
Furnish and Install 8-inch Well Casing	100 lin. ft.	8.00	800.00
Perforate Well Casing	80 sq. in.	1.00	80.00
Pumping Test	6 hr.	15.00	90.00
Standby Time	30 hr.	10.00	300.00
	Subtotal		$4,570.00
	10% Engr. & Cont.		457.00
	Total		$5,027.00

Length of Project - - 0.00 mi.

Retained in Program Status

Drill Additional Well	All Required	$3,500.00
Well Screens	All Required	600.00
Abandon and Fill Hole	All Required	200.00
	Subtotal	$4,300.00
	10% Engr. & Cont.	430.00
	Total	$4,730.00

Summary of Funds

	Total Cost	Federal Funds	State Funds
Well Construction	$5,027.00	$4,600.00	$427.00
Retained in Program	4,730.00	4,300.00	430.00
	$9,757.00	$8,900.00	$857.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.

State Funds for Maint.: Chap. 529, Laws 1939.

G - 1 - 100%

Prefix 631-1064

RECEIVED
AUG 13 1969
FOR FILING

I-8CN-6(36)=68
7297

August 13, 1969

Stoffel Brothers Drilling Co.
Route 1, Box 212
La Grande, Oregon 97850

Gentlemen:

Enclosed are three copies of negotiated Contract No. 7297 for $4,970 awarded to you by the State Highway Commission on July 31, 1969. This contract is for well construction in the Ladd Canyon Safety Rest Area on the Old Oregon Trail in Union County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar day count on this contract will begin August 25, 1969.

Very truly yours,

Floyd Omary, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
William Geibel (SALF)
F. D. Morgan
D. J. Barbee
I. D. Merchant
H. S. Coulter
J. C. Hiatt
Roy Olsen

RECEIVED
AUG 1 - 1969
FOR FILING

I-80N-6(36)268
7297

August 1, 1969

Oregon State Highway Commission

Gentlemen:

On three occasions, we have attempted to secure a bid for wall construction in a safety rest area near Ladd Canyon on I-80N in Union County. The latest try was on June 26 when a bid of $7,840 was received from the Charles Jungmann Drilling Company, which was rejected as being too high. The Engineer's estimate was $3,490.

In situations of this kind, we could continue to advertise but probably would not secure better results. With Bureau of Public Roads approval, we have been able to negotiate a bid with Stoffel Brothers Drilling Company of La Grande in the amount of $4,570. I recommend that this negotiated contract have your concurrence.

The matter was discussed with Chairman Jackson on July 31 and he gave his verbal approval. It will be on the agenda for the August 19 meeting for your confirmation.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

cc: Floyd Quary
L. P. Shaw
F. B. Klaboe
F. D. Morgan
L. H. Young
V. E. Skoog
H. S. Coulter

RLP:ms sr

RECEIVED
JUL 10 1969

UNITED STATES GOVERNMENT

FORM Memorandum

I-80N-6(36)268

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7297

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: July 9, 1969

In reply refer to: 08-35-EC

Klabon

SUBJECT: Oregon Project I-80N-6(36)268
Ladd Canyon Safety Rest Area

I concur in your rejecting the bid for the subject project as it was substantially higher than the engineer's estimate.

I have determined it is in the public interest to negotiate a contract for this work as the project has been advertised three times and no acceptable bid has been received. Approval is therefore given to negotiate a contract for this project.

The maximum total cost of a negotiated contract in which Federal funds participation can be permitted is $7,840, the amount of the bid previously received.

NOTED
F.B. KLABON

orig to Young
copies to Morgan
Skoog
7-10-69

RECEIVED
JUL 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

6-5-69

RECEIVED
JUN 11 1969

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

FOR LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT: I-80N-6(36)268

SECTION: LADD CANYON REST AREA

TO: MR. FORREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

I-80N-6(36)268 Klabon
4463

WORK : WELL DRILLING

COUNTY : UNION

FROM: R. E. SIMPSON, DIVISION ENGINEER
SALEM, OREGON

DATE PS&E APPROVED: JUNE 4, 1969

DATE AUTHORIZED: DECEMBER 18, 1968

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- ○ CONSTRUCTION - ADVERTISE FOR BIDS.
- ○ RIGHT OF WAY.
- ○ OTHER (SPECIFY).
- ○ UTILITY ADJUSTMENT.
- ○ RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. YOUNG'S JUNE 2, 1969 REQUEST AND CERTIFYING STATEMENTS ARE ACCEPTED.

REVISED PS&E DOCUMENTS FOR THE SUBJECT PROJECT HAVE BEEN REVIEWED AND ARE HEREWITH APPROVED. THE INITIAL PS&E DOCUMENTS WERE APPROVED AND AUTHORIZATION FOR ADVERTISING WAS GRANTED ON DECEMBER 18, 1968, HOWEVER, NO BIDS WERE RECEIVED AT EITHER A JANUARY 9, 1969 OR MARCH 20, 1969 BID OPENING.

A SIGNED COPY OF THE REVISED TITLE SHEET IS RETURNED HEREWITH.

6-11-69

OFFICE USE

Young
Wilson

NOTED
F. B. KLABON

RECEIVED
JUN 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
6-5-69	R. E. SIMPSON	DIVISION ENGINEER

RECEIVED
MAY 28 1969

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 26, 1969

File:
I-80N-6(36)268
7277

To: Mr. L. H. Young
Program & Planning Engineer
BUILDING

SUBJECT: Utility Status Report for
June 26, 1969 Letting

The status of negotiations with utilities on all FAI projects for this letting is as follows:

1. TALBOT ROAD - N. ALBANY INTERCHANGE SECTION

Project No. I-5-4 (67) 235 Grading and Signing .

No utilities involved.

2. CABIN CREEK SAFETY REST AREA

Project No. I-5-3 (84) 145 Water System

No utilities involved.

3. LADD CANYON SAFETY REST AREA

Project No. I-80N-6 (36) 268 Well Drilling

No utilities involved.

I certify that to the best of my knowledge the above statements are correct in regard to utility negotiations for the projects scheduled for contract on June 26, 1969.

F. D. Morgan
Construction Engineer

By: T. W. Litchfield
T. W. Litchfield
Utilities Liaison Engineer

JMC:ss

cc: F. B. Klaboe
D. J. Barbee
L. H. Young (4)
D. H. Moehring
V. E. Skoog
C. G. Swenson (3)

RECEIVED
MAY 26 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 13 1968

UNITED STATES GOVERNMENT

Memorandum

I-PCN-6(36)268
7297

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
477 Cottage Street, NE
Salem, Oregon 97301

Klabe

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: December 10, 1968

In reply refer to: 08-35.EC/710.11

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Federal-aid Interstate Program

Mr. Young's August 28, November 1 and November 13, 1968 letters requested the inclusion of six Interstate Items in this program. Until today we have been restricted from processing these program items pending resolution of the requirements of Mr. Bridwell's August 30, 1968 letter. Therefore, these Stage 2, Construction Phase projects are approved effective today:

Item	Project	Location	Work
549	I-405-8(21)302	NW Johnson-SW Montgomery	Landscaping
550	I-80N-6(35)228	Deadman's Pass Rest Area	Drill wells
551	I-80N-6(36)268	Ladd Canyon Rest Area	Drill wells
552	I-80N-5(33)187	Stanfield-Pendleton Sec.	Guardrail & cattle guards
553	I-80N-6(39)233	Emigrant Park-Glover Sec.	Cattle guards
554	I-5-5(44)285	E. Port. Frwy-Wilsonville Section	Grade, pave 3 structures

It is understood that no improvements with regard to right of way are involved on the above projects, therefore the requirements of IM 80-1-68 are satisfied.

On Items 550 and 551, I-80N-6(35)228 and I-80N-6(36)268 the drilling of wells is recognized as Stage Construction for future rest areas.

On Items 552 and 553, I-80N-5(33)187 and I-80N-6(39)233 the individual locations of the guardrail and cattle guards will be approved on the basis of the data accompanying the P.S. & E.

12-12-68
REFERRED TO
Hwy. Engr.

(more)

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

On Item 554, I-5-5(44)285 E. Portland Freeway-Wilsonville Section, you are authorized to proceed with utility preparatory work effective today. The credit for Interstate funds involved in the existing structures will be approved at the P.S. & E. Stage.

This action provides for improvement on 4.48 miles of Interstate Highway at a total estimated cost of $5,474,000 of which $5,085,600 is reserved as Federal-aid Interstate Program funds.

RECEIVED
DEC 12 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 23 1968
BUREAU OF PUBLIC ROADS

12-8-68

F.A.I.N. I-84N-6(32)264

LETTER OF APPROVAL AND/OR AUTHORIZATION

TO: MR. FORREST COOPER STATE HIGHWAY ENGINEER SALEM, OREGON 7297	PROJECT: I-80N-6(30)268 SECTION: LADD CANYON SAFETY REST AREA WORK: PROSPECT WELLS COUNTY: UNION
FROM: R. E. SIMPSON, DIVISION ENGINEER SALEM, OREGON	DATE PS&E APPROVED: DECEMBER 18, 1968 DATE AUTHORIZED: DECEMBER 18, 1968

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- (X) CONSTRUCTION — ADVERTISE FOR BIDS.
- ( ) RIGHT OF WAY.
- ( ) OTHER (SPECIFY).
- ( ) UTILITY ADJUSTMENT.
- ( ) RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. YOUNG'S DECEMBER 12, 1968 REQUEST AND CERTIFYING STATEMENTS ARE ACCEPTED. PS&E DOCUMENTS FOR THE SUBJECT PROJECT HAVE BEEN REVIEWED AND ARE HEREBY APPROVED.

INFORMATION ON SPECIAL MEASURES BY STATE CONSERVATION AGENCIES HAS NOT BEEN RECEIVED, NOR HAS NONCONCURRENCE BY OTHER APPROPRIATE PUBLIC RECREATIONAL OR HISTORICAL RESOURCES AUTHORITIES. PRIOR TO BID OPENING DATE YOU SHOULD ADVISE THIS OFFICE OF ANY CLEARANCE RECEIVED OR WITHDRAW THE PROJECT FROM THE LETTING.

A SIGNED COPY OF THE TITLE SHEET IS RETURNED HEREWITH.

NOTED
F. B. KLABOE

RECEIVED
DEC 23 1968
OFFICE OF
STATE HIGHWAY ENGINEER

OFFICE USE

REFERRED TO [illegible], State Hwy. Engr. 12-23-68

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
12-18-68	For R. E. SIMPSON	DIVISION ENGINEER

MONTHLY TRANSACTION NO. —

DATE SUBMITTED TO W. O. —

FORM PR-1 (REV. 4-61)

FEDERAL-AID P
(PPM 2

CARD 2	REPORT NUMBER (18)–(20)	1	PROJECT LOCATION (45 typewriter spaces) 21–65	I-80N 9.0 Mi. S.E. of La Grande	ADT	PRESENT	2,800	FUTURE (66)	4,900	YEAR (70)(71)	8
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28–62	Drilling Wells for Rest Area	NAT'L. FOREST (63)–(65)		FH ROUTE NO. (66)–(68)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)(73)	PL. AUTH (74)	
CARD 4	CLASS OF FEDERAL FUNDS	Interstate							COUNTY NAME		U
	NAME OF URBAN AREA 17–31								ROUTE NO.	I	FEDERAL-AI I-80N

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE (43–46)	STEP (53)	TERMINI (Full description)	MILES (54)–(58)	TOTAL ESTIMATED COST (59)–(66)	FEDERAL FUNDS (67)
1	(1-4)(5)	(10)	81	42					ESTIMATED PROJECT C	
5					PE		I-80N 9.0 Mi. S.E. of La Grande (Ladd Canyon Rest Area)			
5					ROW					
5					CONST (CODE)			0.0	7,000	6,400
							PROJECT TOTALS	0.0	7,000	6,400

(16) (23)(24)

CARD 1	CODE 1	PREPARED BY
1	14	PROGRAM APPROVAL DATES

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

	ADT	PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
(65)		2,800	4,900 (66)	88 (70)(71)(72)	08	Oregon	35 (2)(3)	042 (4)(9)	551 (14)(18)

SURV AGCY (60)(69)	DA CLASSIF. (70)	DA AREA (71)	ENERG. YR. (72)(73)	PL. AUTH YR (74)(75)	PROJECT NUMBER PREFIX LETTER(S) 14 23	NUMBER 7 13	SEQ. NO.	I. Projects Only POST MI. (24)(26)	DESIG. 27
					I-	80 - 6	(36)	268	N

COUNTY NAME: Union — CODE: 061 (12)(10)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO.: I — FEDERAL-AID: I-80N (32) — STATE (30)(27) — U.S.: I-80N (41)

MILES (34)(38)	TOTAL ESTIMATED COST (39)(46)(50)	FEDERAL FUNDS (51)(58)(67)	STATE FUNDS (76)	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
					Drill 2 wells, test and develop to supply potable water for future N. and S. bound rest area facilities. (Stage construction)
0.0	7,000	6,400	600		ROW - 300' normal; Access Control - full; Parking Restrictions - complete.
0.0	7,000	6,400	600		

(16) (23)(24) (33)

REMARKS

Additional Data: Item 142B, Project I-80N-6(28)262

For PR-37b on R/W-1, ROW-F, Sanitary Facilities - Y.

USCOMM DUSCOMM-DC 48905-P61

I-405-8(22) E. Fremont Interch. Section, 1969
304 Stadium Freeway in Portland
#7298 (Buildings)

PR 603

7298

U.S. GOVERNMENT PRINTING OFFICE: 1974 — 732 • 628

STATE COPY

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

cc: OSHD (H.S. Coulter)
Wash Dc (HHO-32)

FINAL ACCEPTANCE REPORT

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	32	Multnomah	Oregon

DATE OF REPORT	REPORT MADE BY	PROJECT NO.
11-3-77	C.T. Christianson, Area Engr	I-405-8(22-24)304

COMPLETION DATE	ACCEPTANCE DATE BY CONTRACT AGENCY	TIME ELAPSED	CONTRACT TIME
See Below	See below	See below %	See below

APPROVED EXTENSIONS	LOCATION
See Below	Junction of I-5 and I-405 (North End), Portland

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

PROJECT NO.	CONTRACT NO.	COMPLETED	OSHD ACCEPTANCE
I-405-8(22)304	7298	5-5-70	5-12-70
I-405-8(22)304	7310	11-28-72	7-5-73
I-405-8(23)304	7311	5-25-73	7-5-73
I-405-8(24)304	7312	11-28-72	2-2-73

11-10-77 ey Keasey

PROJECT NO.	CONTRACT TIME	APPROVED EXT.	TIME USED
I-405-8(22)304	spec.date 12-31-69	to 3-5-70	comp.5-5-70
I-405-8(22)304	755 CD	210	949
I-405-8(23)304	755 CD	210	900
I-405-8(24)304	660 CD	210	943

RECEIVED
STATE HWY ENGR
NOV 10 '77
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

EAST FREMONT INTERCHANGE
STADIUM FREEWAY
Grading, Paving, Structures and Traffic Control Devices

Based on a final inspection on 11-29-72, this set of projects was accepted subject to satisfactory resolution of problems encountered with the paint system. These problems are now resolved to the mutual satisfaction of all parties involved. Since all of these projects were awarded to the same contractor and were under the direction of the same Resident Engineer, they have been handled as one.

COPY SENT
NOV 9 1977
Washington

*NOTE: Not applicable for direct federal projects.

-more-

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE: C. T. Christianson		SIGNATURE: E. J. Valach — Original signed by E. J. Valach Dist. Engineer	
TITLE: Area Engineer	DATE: 11-3-77	TITLE: District Engineer	DATE: 11-3-77

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

There were no significant changes in project costs as noted by the following tabulation:

CONTRACT	ORIGINAL AUTH	FINAL COST
7298	$ 144,453.72	$ 143,491.37
7310	13,928,737.75	14,065,500.00
7311	9,458,459.11	9,458,944.48
7312	2,218,093.60	2,160,000.00

These figures include engineering and contingencies.

STATE COPY

FORM APPROVED
OMB NO. 04-R2274

U.S. DEPARTMENT TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS

(PPM 20-2 and PPM 40-4)

ALL — *To be completed by Washington Headquarters Personnel*

PART A *(To be completed by FHWA or State Highway Personnel (See instructions on reverse))*

STATE	COUNTY	FEDERAL PROJECT NO.	URBAN (X) / RURAL ( )
Oregon	Multnomah	I-405-8(22)304; (23)304; (24)304	

ITEM	DESCRIPTION	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY (Over 20 ft.)	DATE STARTED
	CONSTRUCTION TYPE CODES				September 26, 1969
20	FINAL CONSTRUCTION COST	DOL.	1,546,500	22,826,100	DATE COMPLETED: November 28, 1972
21	LENGTH OF PROJECT	MILES	-	0.353	TOTAL NO. BRIDGES: 3

PART B *(To be completed by contractor - See instructions on reverse) (REMARKS: Attach plain sheet of paper)*

30	LABOR	TOTAL MAN HOURS: 540,601	GROSS EARNINGS: 5,173,911	

C-A-R-D-B	22	TOTAL COST OF ALL MATERIALS AND SUPPLIES	DOL.	485,277	15,918,777
	9	PETROLEUM PRODUCTS	GAL.	24,166	146,482
	1	CEMENT	BBL.	-	900
C-A-R-D-C	2	AGGREGATES PURCHASED	TON.	10,622	3,827
	92		CU. YD.	-	-
	3	BITUMINOUS MATERIAL	GAL.	1,440	-
	4	LUMBER	MFBM.	11	1,361
C-A-R-D-D	5	TIMBER PILING	LIN. FT.	-	13,444
	7	REINFORCING STEEL	LB.	180,108	10,472,227
	8	STRUCTURAL STEEL	LB.	-	31,679,424
	10	EXPLOSIVES	LB.	-	-
C-A-R-D-E	11	READY-MIXED CONCRETE	CU. YD.	2,953	46,563
	12	PREMIXED BITUMINOUS PAVING MATERIALS	TON	13,623	-
	15	AGGREGATES PRODUCED	TON	-	-
	95		CU. YD.	-	-
C-A-R-D-F	16	MISCELLANEOUS STEEL	LB.	44,678	115,639
	17	FENCING	LIN. FT.	3,770	-
	18	GUARDRAIL	LIN. FT.	4,126	-
	19	BRIDGE RAIL	LIN. FT.		23,203
C-A-R-D-G	23	FINAL CONTRACT AMOUNT FOR SIGNS	DOL.	46,520	46,300
	24	FINAL CONTRACT AMOUNT FOR LIGHTING	DOL.	75,930	80,000

Blocks 48-70 to be completed by FHWA Washington Headquarters Personnel

48 — 52 | 53 — 61 | 62 — 70

CARD H — CULVERT ITEMS

ITEM	SIZE (In.)	LGTH. (Lin. ft.)
6	CORRUGATED STEEL CULVERT	
	6	372
	8	5,898
	12	481

CARD J

ITEM		
13	CONCRETE PIPE	
	8	3,664
	10	53
	12	5,349
	15	1,531
	21	376
	24	107

CARD K

ITEM		
14	CLAY PIPE AND DRAIN TILE	

CARD L

ITEM		
25	CORR. ALUMINUM CULVERT	

CARD M

ITEM		
26	CAST IRON PIPE	

FORM FR-47 (REV. 3-72) PREVIOUS EDITIONS ARE OBSOLETE

INSTRUCTIONS FOR PREPARING AND TRANSMITTING FORM PR–47

GENERAL REQUIREMENTS

Form PR-47 should be transmitted for each highway construction project involving Federal funds except those that consist primarily of the installation of protective devices at railroad grade crossings, those that are constructed on a force account or direct labor basis, Federal-aid Secondary projects, highway work under the direct supervision of the Federal Highway Administration, and highway beautification projects financed with 319(b) funds.

Form PR-47 should be transmitted with or in advance of the Final Report required by Policy and Procedure Memorandum 20-6.1.

A separate form should be transmitted for each contract except that data for two or more contracts on the same project may be combined when such contracts are completed at approximately the same time. In case of a combination, the earliest starting date and the latest completion date should be reported. Where a single contract covers more than one project, only one form should be prepared. A Form PR-47 should not be prepared for a contract covering only the purchase of material but the quantity of material should be reported when subsequently included in a construction project. In all cases, **only the original** of Form PR-47, typed or clearly lettered, and **no carbon or "fast" copies**, should be transmitted to the Washington Office.

If nonparticipating work is included in the contract, all data should be combined with the Federal-aid data in preparing the form. Data for any subcontract should be combined by the State or the division office with that for the prime contract if not so combined by the prime contractor. Quantities of State-furnished materials should be included with contract quantities, and costs of State-furnished materials should be added to Item 20 "Final Construction Cost" and also to Item 22 "Total Cost of All Materials and Supplies". **All quantities should be reported to the nearest whole unit and only in the units specified. All costs should be reported to the nearest dollar.**

Check urban or rural to indicate whether the major cost is for work within an urban area, or in a rural location.

All figures should be verified for reasonableness by State highway department and Federal Highway Administration division office engineers. The total material cost and the total man-hours and gross earnings should bear reasonable relationships to the contract construction amount. Also the quantity of each material reported should be reasonable with respect to the size and nature of the contract and with respect to the quantities of other materials. For example, if a large quantity of reinforcing steel is reported with no cement or ready-mixed concrete, an error of omission in reporting would be indicated.

Average figures for all of these relationships are shown in Tables PT-2a and PT-4 of HIGHWAY STATISTICS, in the published tabulations of highway construction material usage factors, and in an article on highway construction labor in PUBLIC ROADS volume 28, No. 6, February 1957.

Generally, the total cost of materials, supplies, and labor should be substantially less than the final construction cost, as the latter also includes costs of equipment ownership, overhead, and profit which are not required to be reported. If the final construction cost is less or only a few percent more than the total cost of materials, supplies and labor, the indication is that the contractor suffered a loss on the project or that there is an error in reporting. In such case, if it is determined that the figures reported are correct, a statement should be made on plain sheet of paper marked "Remarks" to the effect that the contractor actually did suffer a loss.

Part A - INFORMATION TO BE SUPPLIED BY FEDERAL HIGHWAY ADMINISTRATION OR STATE HIGHWAY PERSONNEL (See PPM-20-2, 20-6.1 and 40-4).

"Final Construction Cost" - Show best estimte of Federal and State costs incurred to date for contract items, extra work performed by contractor, and State-furnished materials.

"Length of Project." - Report official roadway mileage and official bridge mileage.

Part B. - INFORMATION TO BE SUPPLIED BY CONTRACTOR IMMEDIATELY UPON COMPLETION OF CONTRACT

Specific Instructions for the Following Numbered Items:

Item 1 - Report number of barrels of cement used on project. Do not report here the cement included in Item 11.

Items 2 and 92 - Report quantity of aggregates purchased from commercial producers, such as sand, gravel, crushed stone, etc. Do not report here, aggregates included in Items 11 and 12. Aggregates produced by the contractor shall be reported as Item 15 or 95.

Item 3 - Report number of gallons of bitumens such as asphalt and tar. Do not report here, bituminous materials included in Item 12.

Item 4 - Report all lumber products purchased for and used on the project, including plywood and pressed wood, but excluding timber piling, lumber in fencing, guardrail, and signs, and lumber purchased for or used on previous projects and previously reported. The quantity of lumber should be reported as the number of **thousand board feet (MFBM)** and not as the number of board feet (FBM).

Item 5 - Report timber piling in linear feet, regardless of size.

Item 6 - Report, by size, regardless of class, type, gauge or coating, number of linear feet of corrugated steel pipe, structural plate pipe, pipe-arches and arches.

Item 7 - Report total number of pounds of reinforcement for both structures and pavement. Include estimated quantities of reinforcing and prestressing steel in purchased precast units, except concrete pipe reinforcement.

Item 8 - Report total number of pounds of all structural steel, steel H-piling, and sheet piling.

Item 9 - Report total number of gallons of all gasoline, diesel oil, lubricating oil, and grease for equipment and trucks. For conversion purposes use factor of 8 pounds of grease per gallon.

Item 10 - Report total number of pounds of explosives, exclusive of caps and fuses.

Item 11 - Report total number of cubic yards of ready-mixed concrete plus estimated quantity of concrete in purchased precast units, excluding Item 13.

Item 12 - Report total number of tons of bituminous paving mixtures that are purchased in a prepared condition ready for placement as they reach the job.

Item 13 - Report, by size, regardless of class, type, gauge or coating, total number of linear feet of plain and reinforced concrete drain and culvert pipe.

Item 14 - Report, by size, total number of linear feet of clay pipe and drain tile.

Items 15 and 95 - Report total quantity of aggregates such as sand, gravel, crushed stone, etc., produced by the contractor.

Item 16 - Report estimated total weight of steel products not appropriate for Items 6, 7, and 8, such as joint devices, tubular piling, etc.

Items 17, 18 and 19 - Report total lengths, in linear feet, of all types of fencing, guardrail and bridge rail.*

Item 22 - This should be the total cost, at the jobsite, of all construction materials and supplies purchased for and used on the project, including the cost of materials for signing and lighting and the cost of any materials and supplies not specifically listed hereon. Costs of equipment or equipment rental and the cost of operating the equipment, except the costs of fuel and lubricants, should not be included in this item. Small items of equipment such as jackhammers, handtools, repair parts, tires, etc., are not considered to be supplies. Costs of such items and also overhead costs should not be included. The amount included here for aggregates produced should be only the cost paid by the contractor for the aggregates and should not include the costs of excavating, processing, loading and hauling. Wages and man-hours for aggregates produced should, of course, be included with item 30.

Item 23 - Report final contract amount for all types of signs including foundations, posts, structural supports, etc. Do not include traffic signals.*

Item 24 - Report final contract amount for highway and bridge lighting including foundations, conduits, standards, wiring, switches, luminaires, etc. Do not include traffic signals.*

Item 25 - Report, by size, number of linear feet of corrugated aluminum culvert.

Item 26 - Report, by size, number of linear feet of cast iron pipe.

Item 30 - Report total man-hours worked by, and earnings of all contractor's employees on the project, including those on operation and maintenance of equipment.

*Quantities of steel, concrete and lumber used in connection with Items 17, 18, 19, 23 and 24 should not be reported unless difficulties are encountered in segregating such quantities from total quantities.

STATE COPY

RCS 52-30-2

FORM PR-47 (REV. 3-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

BUREAU NO. 41-R2274
APPROVAL EXPIRES SEPTEMBER 1, 1972

STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS

(PPM 20-2 and PPM 40-4)

STATE Oregon
STATE CODE [1]

COUNTY Multnomah (U)[2]

FEDERAL PROJECT NO. I-405-8(22)304

PART A *(To be completed by Bureau of Public Roads or State Highway personnel - See instructions on reverse)*

ITEM		ROADWAY	BRIDGES (Over 20 ft.)
	CONSTRUCTION TYPE CODE		
20	FINAL CONSTRUCTION COST	$ 131,934	$
21	LENGTH OF PROJECT	- MI.	MI.

DATE STARTED: 9-22-69

DATE COMPLETED: 3-5-70

TOTAL NO. BRIDGES:

PART B *(To be completed by contractor - See instructions on reverse)*

ITEM	MATERIALS AND SUPPLIES	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY
1	CEMENT	BBL.	23	
2	AGGREGATES PURCHASED	~~XXXX~~ CU. YD.	661	
3	BITUMINOUS MATERIAL	GAL.		
4	LUMBER	MFBM	3	
5	TIMBER PILING	LIN. FT.		
7	REINFORCING STEEL	LB.	8,073	
8	STRUCTURAL STEEL	LB.		
11	READY-MIXED CONCRETE	CU. YD.	212	
12	PREMIXED BITUMINOUS PAVING MATERIALS	TON	177	
15	AGGREGATES PRODUCED	~~TON~~[3] CU. YD.		
16	MISCELLANEOUS STEEL	LB.	24,564	
17	FENCING	LIN. FT.		
18	GUARDRAIL	LIN. FT.		
19	BRIDGE RAIL	LIN. FT.		
9	PETROLEUM PRODUCTS	GAL.		
10	EXPLOSIVES	LB.		
22	TOTAL COST OF ALL MATERIALS AND SUPPLIES	DOL.	43,702	
23	FINAL CONTRACT AMOUNT FOR SIGNS	DOL.		
24	FINAL CONTRACT AMOUNT FOR LIGHTING	DOL.		

30	LABOR	TOTAL MAN HOURS 5,855	GROSS EARNINGS 34,136

CULVERT ITEMS

ITEM	SIZE (Inches)	LENGTH (Lin. ft.)
6	CORRUGATED STEEL CULVERT	
13	CONCRETE PIPE	
	4	626
	6	345
	8	217
14	CLAY PIPE AND DRAIN TILE	
25	CORR. ALUMINUM CULVERT	
26	CAST IRON PIPE	
	2	210
	3	135
	4	320
	6	320

[1] By BPR. [2] Insert "U" or "R" for Urban or Rural. [3] Strike out unit not applicable.

EDITION OF 9-66 MAY BE USED

(Remarks: Attach plain sheet of paper)

USCOMM-DC 18941-P67

INSTRUCTIONS FOR PREPARING AND TRANSMITTING FORM PR-47

GENERAL REQUIREMENTS

Form PR-47 should be transmitted for each highway construction project involving Federal funds except those that consist primarily of the installation of protective devices at railroad grade crossings, those that are constructed on a force account or direct labor basis, Federal-aid Secondary projects, and highway work under the direct supervision of the Bureau of Public Roads.

Form PR-47 should be transmitted with or in advance of the Final Report required by Policy and Procedure Memorandum 20-6.1.

A separate form should be transmitted for each contract except that data for two or more contracts on the same project may be combined when such contracts are completed at approximately the same time. In case of a combination, the earliest starting date and the latest completion date should be reported. Where a single contract covers more than one project, only one form should be prepared. A Form PR-47 should not be prepared for a contract covering only the purchase of material but the quantity of material should be reported when subsequently included in a construction project. In all cases, **only the original** of Form PR-47, typed or clearly lettered, and **no carbon or "fast" copies**, should be transmitted to the Washington Office.

If nonparticipating work is included in the contract, all data should be combined with the Federal-aid data in preparing the form. Data for any subcontract should be combined by the State or the division office with that for the prime contract if not so combined by the prime contractor. Quantities of State-furnished materials should be included with contract quantities, and costs of State-furnished materials should be added to Item 20 "Final Construction Cost" and also to Item 22 "Total Cost of All Materials and Supplies". **All quantities should be reported to the nearest whole unit and only in the units specified. All costs should be reported to the nearest dollar.**

The letter "U" or "R" respectively, is to be inserted at the top of the form immediately following the name of the county to indicate whether the major cost is for work within an urban area, or in a rural location.

All figures should be verified for reasonableness by State highway department and Public Roads division office engineers. The total material cost and the total man-hours and gross earnings should bear reasonable relationships to the contract construction amount. Also the quantity of each material reported should be reasonable with respect to the size and nature of the contract and with respect to the quantities of other materials. For example, if a large quantity of reinforcing steel is reported with no cement or ready-mixed concrete, an error or omission in reporting would be indicated.

Average figures for all of these relationships are shown in Tables PT-2a and PT-4 of HIGHWAY STATISTICS, in the published tabulations of highway construction material usage factors, and in an article on highway construction labor in PUBLIC ROADS volume 28, No. 6, February 1957.

Generally, the total cost of materials, supplies, and labor should be substantially less than the final construction cost, as the latter also includes costs of equipment ownership, overhead, and profit which are not required to be reported. If the final construction cost is less or only a few percent more than the total cost of materials, supplies and labor, the indication is that the contractor suffered a loss on the project or that there is an error in reporting. In such case, if it is determined that the figures reported are correct, a statement should be made under "Remarks" to the effect that the contractor actually did suffer a loss.

Part A - INFORMATION TO BE SUPPLIED BY BUREAU OF PUBLIC ROADS OR STATE HIGHWAY PERSONNEL (See PPM-20-2, 20-6.1 and 40-4).

"Final Construction Cost" - Show best estimate of Federal and State costs incurred to date for contract items, extra work performed by contractor, and State-furnished materials.

"Length of Project." - Report official roadway mileage and official bridge mileage.

Part B - INFORMATION TO BE SUPPLIED BY CONTRACTOR IMMEDIATELY UPON COMPLETION OF CONTRACT

Specific Instructions for the Following Numbered Items:

Item 1 - Report number of barrels of cement used on project. Do not report here the cement included in Item 11.

Item 2 - Report quantity of aggregates purchased from commercial producers, such as sand, gravel, crushed stone, etc. Do not report here, aggregates included in Items 11 and 12. Aggregates produced by the contractor shall be reported as Item 15.

Item 3 - Report number of gallons of bitumens such as asphalt and tar. Do not report here, bituminous materials included in Item 12.

Item 4 - Report all lumber products purchased for and used on the project, including plywood and pressed wood, but excluding timber piling, lumber in fencing, guardrail, and signs, and lumber purchased for or used on previous projects and previously reported. The quantity of lumber should be reported as the number of **thousand board feet (MFBM)** and not as the number of board feet (FBM).

Item 5 - Report timber piling in linear feet, regardless of size.

Item 6 - Report, by size, number of linear feet of corrugated steel pipe, structural plate pipe, pipe-arches and arches.

Item 7 - Report total number of pounds of reinforcement for both structures and pavement. Include estimated quantities of reinforcing and prestressing steel in purchased precast units, except concrete pipe reinforcement.

Item 8 - Report total number of pounds of all structural steel, steel H-piling, and sheet piling.

Item 9 - Report total number of gallons of all gasoline, diesel oil, lubricating oil, and grease for equipment and trucks. For conversion purposes use factor of 8 pounds of grease per gallon. On projects consisting of fencing, signing, or lighting only, comparatively small quantities of fuel and lubricants used need not be reported.

Item 10 - Report total number of pounds of explosives, exclusive of caps and fuses.

Item 11 - Report total number of cubic yards of ready-mixed concrete plus estimated quantity of concrete in purchased precast units, excluding Item 13.

Item 12 - Report total number of tons of bituminous paving mixtures that are purchased in a prepared condition ready for placement as they reach the job.

Item 13 - Report, by size, total number of linear feet of plain and reinforced concrete drain and culvert pipe.

Item 14 - Report, by size, total number of linear feet of clay pipe and drain tile.

Item 15 - Report total quantity of aggregates such as sand, gravel, crushed stone, etc., produced by the contractor.

Item 16 - Report estimated total weight of steel products not appropriate for Items 6, 7, and 8, such as joint devices, tubular piling, etc.

Items 17, 18 and 19 - Report total lengths, in linear feet, of all types of fencing, guardrail and bridge rail.*

Item 22 - This should be the total cost, at the jobsite, of all construction materials and supplies purchased for and used on the project, including the cost of materials for signing and lighting and the cost of any materials and supplies not specifically listed hereon. Costs of equipment or equipment rental and the cost of operating the equipment, except the costs of fuel and lubricants, should not be included in this item. Small items of equipment such as jackhammers, handtools, repair parts, tires, etc., are not considered to be supplies. Costs of such items and also overhead costs should not be included. The amount included here for aggregates produced should be only the cost paid by the contractor for the aggregates and should not include the costs of excavating, processing, loading and hauling. Wages and man-hours for aggregates produced should, of course, be included with item 30.

Item 23 - Report final contract amount for all types of signs and delineators including foundations, posts, structural supports, etc. Do not include traffic signals.*

Item 24 - Report final contract amount for highway and bridge lighting including foundations, conduits, standards, wiring, switches, luminaires, etc. Do not include traffic signals.*

Item 25 - Report, by size, number of linear feet of corrugated aluminum culvert.

Item 26 - Report, by size, number of linear feet of cast iron pipe.

Item 30 - Report total man-hours worked by, and earnings of all contractor's employees on the project, including those on operation and maintenance of equipment.

*Steel, concrete and lumber used in connection with Items 17, 18, 19, 23 and 24 should not be reported unless difficulties are encountered in segregating such quantities from total quantities.

FORM PR-47 (REV. 3-67)

USCOMM-DC 15941-P67

7298

October 31, 1977

TO G. L. Green, Division Administrator
Federal Highway Administration

Federal-aid Project
No. I-405-8(22)304

FROM C. T. Keasey
Construction Engineer

SUBJECT Request Federal-aid Project Acceptance

Contract 7298, Work Completed May 5, 1970

Project East Fremont Interchange

Highway Stadium Freeway

County Multnomah

Acceptance: Federal Highway Administration March 30, 1970

Transportation Commission May 12, 1970

All participating work on this project has been completed.

The data listing below, a requirement of your acceptance of the project, is attached.

Statement of Materials & Labor, Form PR 47 (3 copies)
Laboratory Materials Certification
Statement of Overruns and Underruns
Progress Estimate and Cost Report, Form E-498

DLC:psp

cc: C. T. Keasey
R. Hacek
R. D. Church

7291

MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT

DATED JANUARY 27,1977

FILED WITH CONTRACT #7310

RECEIVED
MAY 13 1970

I-405-8(22)304
7298

May 13, 1970

General Ins. Co. of America
Portland Service Office
520 S. W. 6th
Portland, Oregon 97204

Gentlemen:

Contract No. 7298 awarded to E. Carl Schiewe for construction of buildings on the East Fremont Interchange Section of the Stadium Freeway in Multnomah County was completed on March 5, 1970, and accepted by the Highway Commission on May 12, 1970.

Final payment in the amount of $13,828.61 will be released to the contractor after May 20, 1970. The total contract amount is $131,925.51 including $4,546.54 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

aj

cc E. Carl Schiewe
1024 N.E. Davis Street
Portland, Oregon 97232

bc Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
A. E. Johnson

RECEIVED
MAY 13 1970

I-405-8(22)304
7298

May 12, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed March 5, 1970, on Contract No. 7298. The contract was with E. Carl Schiewe and was for construction of buildings on the East Fremont Interchange Section of the Stadium Freeway in Multnomah County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective May 12, 1970, and that you concur in this procedure at the Commission meeting on June 2.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
Ivan Marchant
F. D. Morgan
L. H. Young
A. E. Johnson

srb sr

RECEIVED
JUN 2 - 1970
FOR FILING

I-405-8(22)304
1798

#3

April 28, 1970

Mr. E. Carl Schiewe
1024 N. E. Davis Street
Portland, Oregon 97232

Gentlemen:

The State Highway Commission at its meeting on April 21, 1970, granted your request for an extension of the specified completion date to March 5, 1970, (the actual date of completion) without assessment of liquidated damages.

This action pertained to Contract No. 7298 for buildings on the East Fremont Interchange Section of the Stadium Freeway in Multnomah County.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

fkm
cc F. D. Morgan
V. E. Skoog
A. E. Johnson
Robert Shotwell
Bureau of Public Roads

RECEIVED
APR 16 1970
FOR FILING

I-405-8(22)304

7278

April 15, 1970

Oregon State Highway Commission

Gentlemen:

Request for Extension of Time
No. 3
April 21, 1970 meeting

E. Carl Schiewe, contractor for the construction and alteration of a building in the East Fremont Interchange complex on the Stadium Freeway in Multnomah County, Contract 7278, has requested that the completion date for the contract be advanced from the specified date of December 31, 1969, to March 5, 1970, the actual completion date, without assessment of liquidated damages. The contractor cites extra work added to the contract, inclement weather and delays occasioned by others as his reasons for failure to complete the work on time.

The work consisted of three principal elements: construction of a new yardmen's locker building, demolition of an existing yardmen's locker building, and moving and relocating a clubhouse building.

Work of moving and relocating the clubhouse building was essentially complete on the specified completion date. Work on a change order (additional electric heating capacity) issued February 13, 1970, was completed February 27.

The new yardmen's locker building was complete and ready for occupancy on January 8, 1970. Delays in completing this building are attributable to minor plan changes made at the request of the Union Pacific Railroad and inclement weather in November and December which prevented satisfactory painting.

The period between January 8 and February 18 was utilized by the Railroad to connect its communication lines to the locker building and move into the new building.

Work of removing the old building and area paving was completed March 5, 1970.

Delays in completing the work are due to extenuating circumstances beyond the control of the contractor. I recommend that the contract completion date be advanced to March 5, 1970, without assessment of liquidated damages. This waives all liquidated damages.

This is a federal-aid project and we have the concurrence of the Bureau of Public Roads.

This matter will be on the agenda for your consideration at the April 21 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R.L. Porter
F. B. Klaboe
V. D. Wolfe
F. D. Morgan
V. E. Skoog
A. E. Johnson

CAG:smd sr

RECEIVED
MAR 18 1970
BRIDGE DIVISION

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

RECEIVED
MAR 25 1970
BRIDGE DIVISION

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7298 Contractor E. Carl Schieve

Highway Stadium Freeway

Section East Fremont Interchange

Kind of Work Buildings

It is recommended that the request for increase in the number of workdays within which to complete said contract be [redacted]r GRANTED. The reasons for such recommendation are as follows: Delays caused by (1) Inclement weather which delayed painting the locker building.
(2) Delay in moving into the new locker building by the Union Pacific Railroad,
(3) Additional work added to the contract.

Recommended for Approval:

Assistant Division Engineer

Construction Engineer-or-Bridge Engineer

State Highway Engineer

State Printing 71080

Contract No.	7298
Project designation	I-405-8(22)304 (State-Federal)
Date awarded	September 9, 1969
Work started	September 22, 1969
Per cent completed	100% (3/5/70) (Date)
Specified Completion Date	12/31/69
~~No. of Workdays Allowed~~	
No. of Workdays Used	N.A.
No. of Added [redacted]days Requested	60

E—220 (Rev.)—2M—3-68

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date March 11, 19 70

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 113 days to 181 days, within which to complete our Contract No. 7298, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

See attached letter dated March 11, 1970 on letterhead of E. Carl Schiewe

Respectfully submitted,

E. Carl Schiewe
Contractor

By E. F. Fessler

CONSENT OF SURETY

Date March 13, 19 70

We, GENERAL INSURANCE COMPANY OF AMERICA

, as surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Richard N. Mahle
Attorney-in-fact

(SEAL)

NOT REQUIRED IN OREGON
Resident Agent

Executed in Triplicate

RECEIVED
APR 1 1970
FOR FILING

Form FHWA-12 (12-67)
UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304
7298

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: March 30, 1970

In reply refer to: 08-35-DA

Edwards

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange (Buildings)
Contract No. 7298

The delays in completion of the contract work were reviewed.

The delays were beyond the control of the contractor; therefore,

I agree liquidated damages should not be assessed.

Ltr from Contr.
4-6-70

RECEIVED
APR 3 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
MAR 30 1970
FOR FILING

I-405-8(22)304

7298

March 27, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97310

Re: East Fremont Interchange
(Buildings)
Contract No. 7298
FAP I-405-8(22)304

Dear Sir:

The specified completion date for the contract was December 31, 1969. The work was completed March 5, 1970. This is an overrun of 64 days.

The work consisted of three principal elements -- i.e., construction of a new Yardmen's Locker Building, demolition of an existing Yardmen's Locker Building, and moving and relocating a Clubhouse Building.

Work of moving and relocating the clubhouse building was essentially complete on the specified completion date. Work on a change order (additional electric heating capacity) issued February 13, 1970 was completed February 27, 1970.

The new Yardmen's Locker Building was complete and ready for occupancy on January 8, 1970. Delays in completing this building are attributable to minor plan changes made at the request of the Railroad and inclement weather in November and December which prevented satisfactory painting.

The period between January 8 and February 18 was utilized by Union Pacific to connect its communication lines to the locker building and move into the new building. The work was under a shut-down order for this period, a total of 41 days.

Work of removing the old building and area paving was completed March 5, 1970. Additional drainage work added to the locker building parking lot was accomplished during the shut-down order period.

Delays in completing the work are due to extenuating circumstances beyond the control of the contractor. With your concurrence I propose to recommend to the Highway Commission that the contract completion date be advanced to March 5, 1970 without assessment of liquidated damages.

Delay in completion of the work on this contract has not in any way affected progress on the East Fremont structure contracts.

Very truly yours,

Forrest Cooper
State Highway Engineer

ORIGINAL SIGNED
By TOM EDWARDS ja

Tom Edwards
Assistant State Highway Engineer

bc Forrest Cooper
R. L. Porter
Victor D. Wolfe
Ivan Merchant

CMC:dh ja

RECEIVED
APR 2 - 1970
FOR FILING

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

1298

March 9, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon 97301

Contract 7298
Prefix 636-1023
FAP I-405-8(22)304

NOTED
F. B. KLAGGE

Dear Sir:

All work under Contract No. 7298, East Fremont Interchange Section of the Stadium Freeway in Multnomah County, was completed on March 5, 1970.

We request that your office inspect the contract work and return two signed copies of this letter indicating acceptance or listing below any items or conditions of the contract which would prevent your final acceptance of the contract work.

Very truly yours,

Forrest Cooper
State Highway Engineer

By F. D. Morgan
F. D. Morgan
Construction Engineer

Bureau of Public Roads
Oregon Division Office Endorsement Date 3-30-70

Conditions noted on above date:

The contract work was inspected on March 26, 1970
and acceptance is recommended.

for R. E. Simpson
Division Engineer

RECEIVED
MAR 31 1970
OFFICE OF
STATE HIGHWAY ENGINEER

VG:fw

cc Forrest Cooper
F. D. Morgan

RECEIVED
MAR 9 - 1970
FOR FILING

I-405-8(22)304
7298

Salem, Oregon
March 9, 1970

Contract No. 7298
East Fremont Interchange Section

Mr. I. D. Merchant
Bridge Engineer
BUILDING

Contract No. 7298 for construction and moving of UPRR buildings was completed March 5, 1970.

The assessed liquidated damages amount is $6,400 which exceeds the 5 percent contract retainage amount of $6,358.60.

No further payments to the contractor can be made without assessment of the liquidated damages or until such time as the State Highway Commission approves a time extension.

F. D. Morgan
Construction Engineer

VG:fw

cc A. E. Johnson
R. E. Stotwell

I-405-8(22)304
4297

FORM E-1 (REV. 12-64)

OREGON STATE HIGHWAY DEPART....NT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: East Fremont Interchange Buildings	WEEK ENDING: March 7, 1970	
HIGHWAY: Stadium Freeway	SECTION FROM: 626-10(3)	
	COUNTY: Multnomah	
NAME OF JOB: East Fremont Interchange	KIND OF WORK: Buildings	
CONTRACTOR: E. Carl Schiewe	CONTRACT NUMBER: 723	FEDERAL AID PROJECT NUMBER: I-405-8(22)304
DATE OF CONTRACT: 2-2-69	DATE WORK STARTED: 3-22-69	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $184,453.72	SPECIFIED COMPLETION DATE: December 31, 1969	PERCENT OF TIME ELAPSED: 16% (9-22-69)
EXCLUSIVE OF ENGINEERING: $132,999.24	ENGINEERING AUTHORIZATION $11,494.40	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 10%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $132,999.24	ENGINEERING COST TO DATE $ 7200	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 10%
ESTIMATED PERCENT: OVERRUN / UNDERRUN ____%	PERCENT OF AUTHORIZATION 62.9%	DATE PROJECT WAS COMPLETED: March 5, 1970

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
	Does Not Apply						

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY 1					
HOURS PER SHIFT 8					

EQUIPMENT USED DURING THE WEEK: Crane, truck, roller, paving machine.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.	N.A.							
PERCENT	N.A.							

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY		Does Not Apply		
MONDAY	Clear & cold	-		
TUESDAY	Cloudy & showers	-		
WEDNESDAY	Cloudy-clearing	-		
THURSDAY	Clear-warm	-		
FRIDAY	Cloudy-rain	-		
SATURDAY		-		

Routing
Morgan
Decker
Bond
Weliver
Boehme
Johnson
Peace
Swan
Glenn
Litchfield
Stein

RECEIVED
MAR 10 1970
CONSTRUCTION DIVISION

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	Remove locker building.
TUESDAY	Complete demolition of old locker building and rough grade area.
WEDNESDAY	Place rock & pave S.P. parking lot vicinity ofold locker building.
THURSDAY	Patch low areas on paved area vic. of old locker building.
FRIDAY	All work complete except final touch up of paint in locker building.
SATURDAY	

REMARKS

All work complete except final touch up of paint in locker buildings.

RECEIVED
MAR 9 1970
BRIDGE DIVISION

2101 N. Russell St.
Portland, Oregon 97227

SIGNED Robert L. Bothwell, Resident Engineer LOCATION

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP*F216

STATE COPY 6-15

Form E-[illegible]

REGON STATE HIGHWAY DEPARTMENT

APPROVED EFFECTIVE [illegible]
Contingent upon modification of project agreement if additional funds are required
BY [signature] Dist. Engineer
TITLE
DATE MAR 1970

RECEIVED
MAR 5 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22)304
7298

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

U. S. BUREAU OF PUBLIC ROADS

Project Name East Fremont Interchange Buildings / Date February 13, 1970

Highway Stadium Freeway / Contract No. 7298

County Multnomah / Prefix 626-1023

Contractor E. Carl Schiewe / F. A. Project No. I-405-8(22)304

Address 1024 N. E. Davis St., Portland, Oregon 97232 / Order No. 3

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Furnish & install an additional 12Kw of baseboard heaters. Install new electric panel to accomadate additional load.

1. Maximum equipment rental rates allowable as per AGC Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

Union Pacific Old Timers Club House.

Estimate of quantities and cost:

Materials	$750.00
Labor	$250.00
Total	$1000.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Heaters installed per contract proved to be insufficient to maintain inside temperature. Heat loss study indicates an additional 12 Kw is required. Prior approval received from BPR. Work has not been performed.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$144,453.72	
Present estimate of project cost, including $1,000.00 for work under this order	$142,770.23	
Expected under-run amount	$1,683.49	
Expected under-run per cent	1.165%	

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer or Construction Office Engineer.

3-3-70

SP*23577-734

Form E-[illegible]

RECEIVED
FEB 3 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22)304
7298

G-1P

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

APPROVED EFFECTIVE DATE [illegible]
Contingent upon modification of project agreement if additional funds are required

BY [signature]

TITLE Dist. Engineer

DATE 24 FEB 1970

U. S. BUREAU OF PUBLIC ROADS

Project Name East Fremont Interchange - Buildings — Date January 29, 19 70

Highway Stadium Freeway — Contract No. 7298

County Multnomah — Prefix 626-1023

Contractor E. Carl Schiewe — F. A. Project No. I-405-8(22)304

Address 1024 N.E. Davis St., Portland, Oregon 97232 — Order No. 2

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

1. Install two catch basins and furnish & place 8" concrete pipe to 48" outfall sewer.
2. Remove water meter from old building & reinstall in new building.

1. Maximum equipment rental rates allowable as per AGC Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

Yardman's Locker Building.

[illegible]NEER
RECEIVED
JAN 30 1970
[illegible]
NOTED
R. H. KLEIN

Estimate of quantities and cost:

Labor	$1,400
Equipment	600
Material	1,000
	$3,000

Explanation: (Explain here the conditions which cause this work to be classed as "extra work") The existing paved slope to drainage basin was blocked by the location of the new building. Item 1 of this order is to drain the west side of the parking area. The removal of the existing water meter and installation in new locker building was overlooked on plans item 2 is to complete this work. Prior approval from BPR has been received. Work has not been performed.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$ 144,453.72
Present estimate of project cost, including $ 3,000.00 for work under this order	$ 141,770.23
Expected under-run amount	$ 2,683.49
Expected under-run per cent	1.857%

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approval Recommended: [signature] Locating Division Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer-Construction, Office Engineer.

P2-8-2

DEC 1[illegible]369

FOR FILE

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

December 9, 1969

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Superintendent

Re: Removal of Linde Air Spur Track
East Fremont Interchange Section
Stadium Freeway
Project No. I-405-8 (22) 304
Contract No. 7298
YOUR FILE: D 9010-32-17

Gentlemen:

Please refer to our letter dated November 12, 1969 and the estimate attached thereto detailing the work to be done by the Railroad in accordance with Section 3 (a), Right of Entry Agreement, dated June 13, 1969; reference Exhibit "B-1". In that letter you were authorized to proceed with Items 6, 7, 8, 9, 10 and 11 on that estimate. Authorization to proceed with Items 2, 3, 4 and 5 was withheld pending further investigation.

These items have now been reviewed again by the State and the Bureau of Public Roads and you are hereby authorized to proceed with Items 2, 3, 4 and 5 as of December 4, 1969.

Please contact our Resident Engineer, Mr. R. E. Shotwell, prior to beginning work so that your work may be coordinated with that of our contractor.

Reimbursement for Items 2, 3, 4 and 5 will be made subject to the provisions of PPM 30-3 upon receipt of your statement of charges. Please be sure to include the beginning and completion dates of the work in the bill.

TWL:ss

cc: R. E. Simpson
F. B. Klaboe
I. D. Merchant (w/attachment)
V. L. Gallagher (2) (w/attachment)
V. E. Skoog (w/attachments)
A. E. Johnson (w/attach.) (2)
R. E. Shotwell "
Enclosure
Jack Hesla "

Very truly yours,

F. D. Morgan
Construction Engineer

By:

T. W. Litchfield
Utilities Liaison Engineer

*Note to A. E. Johnson: Please have a State Force Order prepared and submitted for Items 2, 3, 4 and 5 of the attached estimate. Return 1 copy of estimate with SFO.

F. B. KLABOE

RECEIVED
DEC 9 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
NOV 17 1969

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

November 12, 1969

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

NOTED
F.B. KLABOE

Re: Relocation of Communication and Electrical Service Lines
Clubhouse and Yardman's Locker Buildings
E. Fremont Interchange Section
Stadium Freeway
Project No. I-405-8 (22) 304
Contract No. 7298
YOUR FILE: D 9010-32-17

Gentlemen:

Your estimate and sketch map for the adjustment of your facilities on this project as submitted with your letter of October 22, 1969, have been reviewed by the State and the Bureau of Public Roads. This will confirm our verbal authorization to proceed with the work detailed below as of November 3, 1969.

You will find attached a copy of your estimate submitted with your October 22 letter. Our verbal authorization refers specifically to Items 6, 7, 8, 9, 10 and 11. Authorization to proceed with Items 2, 3, 4 and 5 is withheld pending further investigation.

It is understood that Item No. 1 is intended to include all of the preliminary engineering which has been performed since it was authorized on November 18, 1963, and should be charged to Project No. I-405-8 (1) 301. It is also understood Item No. 12 includes engineering inspection costs anticipated for the following contracts:

Pier Construction - Contract No. 7124 - Project No. I-405-8 (16) 303.
Bridge Superstructure - Contract No. 7276 - Project No. I-405-8 (17) 303.
UPRR Buildings - Contract No. 7298 - Project No. I-405-8 (22) 304.
Structure Contract, Unit A - Contract No. 7310 - Project No. I-405-8 (22) 304.
Grade-Pave-Structure Contract - Unit B - Contract No. 7311-Project No. I-405-8 (23) 304.

The engineering inspection work is authorized as required to conform to the activities of the various contractors.

Reimbursement for the work as detailed above will be made subject to the provisions of PPM 30-3 upon receipt of your statement of charges. Please be sure to include the beginning and completion dates of the various phases of the work in the bill.

Very truly yours,

F. D. Morgan
Construction Engineer

By:

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss
Enclosure

cc: R. E. Simpson
F. B. Klaboe
I. D. Merchant (w/attach.)
V. L. Gallagher (2) (w/attach.)
V. E. Skoog "
A. E. Johnson (w/attach.) (2)
R. E. Shotwell "
Jack Hesla "

*Note to A. E. Johnson - Please have a State Force Order prepared and submitted for Items 6, 7, 8, 9, 10 and 11 of the attached estimate. Return one copy of the estimate with the SFO.

RECEIVED
NOV 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Work to be done by the Railroad in accordance with Section 3(a), right-of-entry agreement dated June 13, 1969; reference Exhibit "B-1":

Item			
1.	Engineering		$14,850.
2.	Remove Linde Air Spur Track, ED-194, 445'		2,020.
3.	Install Rails & Cross ties Displacing Frog & Sw. Ties		590.
4.	Relay Rail, Track ED-79 59 T.F. 131/90#		680.
5.	Rehabilitate Track through Crossing		760.
6.	Reroute Communication Line to Clubhouse at New Location		175.
7.	Reroute Communication Lines to New Boardroom		1,240.
8.	Relocate U.G. Comm. Lines to Clear Bridge Piers		3,165.
9.	Provide Electrical Service to New Boardroom		795.
10.	Provide Electrical Service to Relocated Clubhouse		2,210.
11.	Make Permanent Relocation of Electric Power Line to Division Office		3,500.
12.	Engineering-Inspection		17,175.
13.	Flagging - Contractor or State		Not Estimated
14.	Salvage Credit 59' Relay	$100.	

RECEIVED
NOV 4 - 1969
FOR FILING

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

October 30, 1969

D 9010-32-17

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION
I-405-8(22)304
1727

Routing: C

Morgan
Docker
Bond
Walker
Boehme
Simpson
Peaco
Swan
Glenn
Litchfield
Gallagher
Stein

RECEIVED
NOV 3 1969
CONSTRUCTION
DIVISION

Mr. T. D. Morgan
Construction Engineer
Oregon State Highway Department
Highway Building
Salem, Oregon 97310

Attention: Mr. T. W. Litchfield
Utilities Liaison Engineer

Construction Plans UP RR
Club House and Yardmen's
Locker buildings, East
Fremont Interchange Section
Stadium Freeway
Project No. I-405-8(22)304

Dear Sir:

This is in reply to your letters of July 15, Aug. 6 and Sept. 5, all having to do with relocation of Railroad's Club House and construction of new Yardmen's locker building necessitated by the above referenced States' project.

The revised plans and special provisions covering the buildings and furnished with your letter of Aug. 6 are presently being processed for review and approval. The original plans dealing with the locker building only, submitted with your letter of July 15, will not be submitted for separate approval since these plans are incorporated in the later set presently being reviewed.

Referring to your letter of Sept. 5, in which you outline the Railroad's share of the cost to construct the new locker building, this will confirm our intent to bear the additional cost of $7,196 which reflects the additional cost for Alternate "B" shown on States' drawing No. 24733, Sheet 1 of 8, dated July 2, 1969. It is also understood that the Railroad will give the State a credit in the amount of $11,093 which reflects the depreciation on the existing locker building.

COPIES TO: RE SIMPSON
TOM EDWARDS
FB KLABOE
ID MERCHANT
LH YOUNG
JL SOLLIS
AE JOHNSON
RE SHOTWELL
JACK HESLA

Yours very truly,

W. G. Johnson

NOTED
F.B KLABOE

RECEIVED
NOV 4 1969
OFFICE OF
- STATE HIGHWAY ENGINEER

RECEIVED
NOV 1 - 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

October 24, 1969

I-405-8(22)304

7298

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Re: Adjustment of Water Facilities
Bureau of Water Works
City of Portland
East Fremont Interchange Section
Stadium Freeway - I-405
Multnomah County
Project No. I-405-8 (22) 304

Gentlemen:

Herewith you will find the following data pertaining to this project:

1. Two (2) copies of the Bureau of Water Works estimate for doing the work dated October 14, 1969.

2. Two (2) copies of a sketch map prepared by the Bureau of Water Works showing the work to be done.

Certification as to the City of Portland's rights in the area they occupy and their right to reimbursement is covered by State-City Agreements dated April 13, 1962 and November 24, 1964 and supplemental agreements thereto.

A permit is not required as the relocation will be made in City streets.

The relocation involves segments of water facilities totaling less than one (1) mile in length and, therefore, the State is not entitled to a credit under the provisions of Paragraph 9b (1) (b) of PPM 30-4. This completes the agreement between the State and the City of Portland. Two (2) copies of our Staff Attorney's letter describing the conflicts and establishing the obligation of the State to reimburse the City for the adjustments are attached.

Your approval of this agreement as evidenced above and authorization to proceed with the work under the provisions of PPM 30-4 is requested.

RECEIVED
OCT 24 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Very truly yours,

F. D. Morgan
Construction Engineer

By: Darlene Gallagher
for T. W. Litchfield
Utilities Liaison Engineer

JMC:ss

cc: F. B. Klaboe
V. L. Gallagher (2)

Enclosure

RECEIVED
NOV 1 - 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

October 23, 1969

I-405-8(22)304

7298

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Re: Additional Railroad Work
East Fremont Interchange Section
Stadium Freeway
I-405-8 (22) 304
Contract No. 7298

Dear Sir:

Please refer to the Permit of Entry granted by the Union Pacific Railroad Company for the construction of this project dated June 13, 1969.

Exhibit "B-1" outlines various work required by the Railroad to accommodate the relocated Club House Building and L & T Building. We have asked for and finally received an estimate of these costs which we attach hereto with the Union Pacific's letter dated October 22, 1969. All of the work shown on the sketch and estimate appear to be essential to the restoration of the function of the Railroad's yard disrupted by our construction.

Please review the attached information and if in order, authorize us to proceed in accordance with PPM 30-3. Inasmuch as this work will affect the work of our contractor, who has recently been awarded Unit "A" of the East Fremont Interchange Section, we solicit your prompt attention to this matter.

Very truly yours,

F. D. Morgan
Construction Engineer
ORIGINAL SIGNED BY
By: T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss
Enclosure

cc: F. B. Klaboe
V. L. Gallagher (2)

F. B. KLABOE
NOV

RECEIVED
OCT 24 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
NOV 1 - 1969
FOR FILING

I-405-1(22)FCA
7298

Bid Aug 28

September 9, 1969

Mr. E. Carl Schieve
1024 N.E. Davis Street
Portland, Oregon 97232

Dear Mr. Schieve:

The State Highway Commission on September 2, 1969, accepted your proposal for buildings on the East Fremont Interchange Section of the Stadium Freeway in Multnomah County for the sum of $127,172 and referred it to the State Highway Engineer with authority to award the contract as soon as certain arrangements had been made with Union Pacific Railroad.

These arrangements have been completed and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7298.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The completion date on this contract is December 31, 1969.

Very truly yours,

Floyd Quacy, Secretary
OREGON STATE HIGHWAY COMMISSION

ccs
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Gaibel (SAIF)
A. E. Johnson
Robert Shotwell

Form FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

RECEIVED
SEP 9 1969
FOR FILING

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: September 8, 1969

In reply refer to: 08-35-EC

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

I-405-8(22)304
7298

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange
Building Replacement and Moving

In our August 6, 1969 supplemental letter of PS&E approval and authorization to advertise for the subject work we omitted any mention of authorization for contractor's flagging.

Therefore, we are hereby advising you that effective the date of award concurrence on the subject contract you are authorized to proceed with contractor's flagging in the amount of $100 as shown on your August 26, 1969 revised PS&E estimate.

9-5-69

By Asst. State Hwy. Engr.

RECEIVED
SEP 9 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
SEP 8 - 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)304

7298

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

September 5, 1969

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: Award of Contract
Yardman's Locker Building
East Fremont Interchange Section
Stadium Freeway
Multnomah County
Project No. I-405-8 (22) 304
Contract No. 7298
YOUR FILE: D 9010-32-17

Gentlemen:

On August 28, 1969, bids were opened for the reconstruction of the Locker and Toilet Building and the moving of the Clubhouse. As requested in your letter to our Mr. Edward L. Hardt dated June 5, 1969, we called for alternate bids, Alternate "A" being for duplication of the existing building, and Alternate "B" for the larger building as described in your June 5 letter.

The only bid received was from Mr. E. Carl Schiewe of Portland who submitted a bid for Alternate "A" in the amount of $119,976.00 and Alternate "B" in the amount of $127,172.00. On August 29, 1969, our Mr. Cartwright called your Mr. Scanlon and advised him of these bids and requested you to consider the acceptance of Alternate "B". Your acceptance of Alternate "B" would be contingent on your agreement to bear the additional cost of $7,196 over Alternate "A".

In our meeting on May 22, 1969, we agreed that the credit for expired service life, which was to be allowed for the existing structure, was $11,093.00. Therefore, upon completion of this entire project it is understood that if the Railroad accepts Alternate "B" the State will receive a credit in the amount of $18,289.00 ($11,093 plus $7,196) in the final bill presented by the Railroad to the State for reimbursable work done by Railroad forces in connection with this project. Should the Railroad accept Alternate "A" the credit in the final bill shall be $11,093 only.

It is further understood, should you accept Alternate "B", that during the course of construction if any unforseen increase in cost is generated by the construction of the south 20' 8" of the building, the Railroad will bear all this additional expense. By the same token, any unforseen cost generated by the North 100' 0" will be borne by the State.

NOTED
TOM EDWARDS

We solicit your early concurrence in this procedure so that we may proceed with the award of the contract.

Very truly yours,

F. D. Morgan
Construction Engineer

By: ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

cc: L. J. Bergmann - UPRR

TWL:ss

cc: R. E. Simpson
Tom Edwards
F. B. Klaboe
I. D. Merchant
L. H. Young
J. L. Sollis
A. E. Johnson
R. E. Shotwell
Jack Hesla

RECEIVED
SEP 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 11 1969
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

FOR FILING SUPPLEMENTAL 8-6-69
LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT: I-405-8(22)304

SECTION: EAST FREMONT INTERCHANGE UNIT "A"

WORK : BUILDING REPLACEMENT AND MOVING

COUNTY : MULTNOMAH

TO: MR. FOREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

#405-8(22)304

FROM: R. E. SIMPSON, DIVISION ENGINEER
SALEM, OREGON

DATE PS&E APPROVED	DATE AUTHORIZED
AUGUST 6, 1969	AUGUST 6, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- (XXX) CONSTRUCTION - ADVERTISE FOR BIDS.
- ( ) RIGHT OF WAY.
- ( ) OTHER (SPECIFY).
- ( ) UTILITY ADJUSTMENT.
- ( ) RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. YOUNG'S AUGUST 5, 1969 REQUEST AND CERTIFYING STATEMENTS ARE ACCEPTED.

THIS AUTHORIZATION SUPPLEMENTS AUTHORIZATION OF JULY 16, 1969 WHICH COVERED THE CONTRACT FOR UNIT "A" OF THE EAST FREMONT INTERCHANGE. A SEPARATE CONTRACT WILL BE LET TO COVER THE WORK COVERED BY THE CURRENT AUTHORIZATION.

FEDERAL PARTICIPATION IN THIS WORK WILL BE LIMITED TO THE PRO-RATA SHARE OF THE OVERALL LOW BID.

PS&E DOCUMENTS FOR THE SUBJECT WORK HAVE BEEN REVIEWED AND ARE HEREBY APPROVED.

A SIGNED COPY OF THE TITLE SHEET IS RETURNED HEREWITH.

8-8-69

OFFICE USE

Young
ltr. enc.

RECEIVED
AUG 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

D	SIGNATURE OF APPROVING OFFICIAL	TITLE
8-6-69	R. E. SIMPSON	DIVISION ENGINEER

DEPARTMENT
JUL 30 1969
RECEIVED

FORM S-20 (12-67)

I-405-8(22)3C4
7228

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

July 14, 1969
Salem, Oregon

SUBJECT:

File 36087 - KN 603
Union Pacific Railroad
Fremont-Sunset Interchange
Pacific Hwy.
Multnomah Co.

To:

F. B. Klaboe
Asst. State Highway Engineer

B U I L D I N G

NOTED
F. B. KLABOE

As a condition in acquiring the U. P. R. R. property the Department agreed to relocate the U. P. Clubhouse. The cost of moving and bringing the building up to code exceeds the contracting limits of this office. We are requesting that the moving of this building be taken over by the Office Engineer. A letter from the City of Portland Building Inspector's Office outlining the necessary changes to conform with the building code is attached.

W. H. HASKIN
Property Manager

WHH/ag

Attachment

cc: Don Jones
Federal Aid Section
Jack Sollis
L. H. Young
T. W. Litchfield
E. L. Hardt

~~Chief Engr.~~

~~By Asst. State Hwy. Engr.~~

7-15-69
Sollis to ask for variance
BK done
B to F 7/30

STANLEY W. EARL
COMMISSIONER
DEPARTMENT OF PUBLIC SAFETY

BUREAU OF BUILDINGS
ROOM 403 - CITY HALL

C. N. CHRISTIANSEN, DIRECTOR

BUILDING DIVISION
E. C. CRANK, CHIEF

ELECTRICAL DIVISION
R. A. NIEDERMEYER, CHIEF

PLUMBING DIVISION
GEORGE W. WALLACE, CHIEF

PERMIT DIVISION
ALBERT CLERE, CHIEF

HOUSING DIVISION
O. J. CHEGWIDDEN, CHIEF

RECEIVED
JUL 1 1969
METRO. PROP.

CITY OF PORTLAND
OREGON

BY204

July 8, 1969

JUL 1 1969

Mr. Donald E. Jones
District Property Agent
Metropolitan Section Oregon State Highway Dept.
5821 N. E. Glisan Street
Portland, Oregon 97213

Re: 2611 North Larrabee
(File No. 36087 U.P.R.R.)

Dear Mr. Jones:

On June 30 building inspectors examined the clubhouse at 2611 North Larrabee Avenue for a proposed move to Lot 5, Block 56, Albina Addition. The building is now located in M-1 Zone in Fire District No. 3 and the proposed move is to Zone M-1 and Fire District No. 2.

The building was found to be Type V-N, a wood frame structure, and the electric cooking range in the kitchen does not have a hood and vent.

In order to move this structure into Fire District No. 2, it will be necessary to bring the entire building into compliance with present code requirements including one-hour construction and conformity with Article 51 regarding the commercial food preparation equipment. Recommendations on the plumbing are enclosed.

Complete plans of the building will need to be submitted showing compliance with the requirements for a new building at this location, and a building permit will need to be obtained before the moving can be approved.

Yours very truly,

C. N. CHRISTIANSEN
BUILDING INSPECTIONS DIRECTOR

C. C. Crank
C. C. Crank
Chief Building Inspector

VB:hl

CITY OF PORTLAND

INTER-OFFICE CORRESPONDENCE

(NOT FOR MAILING)

JULY 7, 1969

RECEIVED
JUL 10 1969
METRO. PROP.

From PLUMBING DIVISION

To BUILDING DIVISION

Addressed to MR. C. C. CRANK
CHIEF BUILDING INSPECTOR

Subject RELOCATING OF THE UNION PACIFIC CLUB HOUSE AT 2611 N LARABEE ST.

PLEASE ADVISE THE BUILDING CONTRACTOR TO HAVE A LICENSED PLUMBER OR SEWERMAN OBTAIN A SEWER CAPPING PERMIT AND CAP THE BUILDING SEWER AT THE PROPERTY LINE, DISCONNECT BUILDING DRAIN AND WATER PIPE UNDER FLOOR.

AFTER INSPECTION BY THE PLUMBING INSPECTOR, THE APPLICATION FOR THE MOVING PERMIT MAY BE APPROVED BY THE PLUMBING DIVISION.

YOURS VERY TRULY,

George W. Wallace

GEORGE W. WALLACE
CHIEF PLUMBING INSPECTOR

LDW:MB

RECEIVED
JUN 26 1969

FILE
I 410-1(23)
7211

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 24, 1969

To:

SUBJECT:

MEMO TO THE FILE

R-36087
Moving of Union Pacific Clubhouse

We are running into difficulties on the moving of the Union Pacific clubhouse. Attached is a memo from Donald E. Jones concerning the first meeting with the Union Pacific Railroad.

I have also talked to Ed Hardt, Assistant Metropolitan Engineer, several times on the moving of the clubhouse; and it appears that if the clubhouse is moved it will have to be brought up to the code requirements of the city of Portland which means that the plumbing and wiring will have to be brought up to code. As this is in Fire Zone 2, there will have to be installed a sprinkler system or fire retard material on the building. We will not know the exact requirements of the city of Portland until such a time as we apply for a moving permit. I have, therefore, instructed Mr. Haskin to apply immediately for a moving permit so we may know the exact requirements of the city of Portland. Mr. Hardt advised me that it might be possible to have some of these requirements waived by appealing to their Building Code Review Board. As soon as the requirements of work on the building are received from the city of Portland, I will have the cost of doing the work estimated and will at that time request a decision as to whether we should try to get these requirements waived or go ahead with the moving of the clubhouse with the intention of meeting all the requirements.

As will be noted from the attached memo, we must furnish the Union Pacific Railroad complete plans and specifications as to how the move will be made and the condition in which the building will be set up after moving and the details concerning the installation of utilities and their connection at the new location. It would appear to me that we could work out the details concerning the utilities location while we are processing our moving permit; and therefore, it would appear that somebody should authorize this work to be done as quickly as possible.

Also attached is a memo just received from Mr. Hardt explaining his contact with the city of Portland regarding the moving of the clubhouse.

The Permit of Entry has been signed and returned to the Railroad; and therefore, we should be able to work with Mr. Tabor and Mr. Deakin and work out the details of the moving as quickly as possible.

It appears at this time that it will be impossible to have the building moved by August 20, and it looks like it will be the first of October or November before it is moved. To accomplish the moving of the building by that date will take the closest of cooperation between the Bridge Department, Mr. Haskin's office, and the Metropolitan office. The cooperation so far has been very good; and if we can keep it going at this level, I am sure we can resolve all the problems.

Mr. Hardt of the Metropolitan office seems to be handling the matter for that office and is quite familiar with all the complications.

I am writing this memo for the purpose of bringing this problem to the attention of all concerned, and I am at your service to contribute what must be done on my part to accomplish the moving of the clubhouse.

JACK L. SOLLIS
Staff Attorney

JLS:krk

Attachments (2)

cc: F. B. Klaboe
Tom Edwards
Ivan Merchant
G. E. Rohde
F. C. McKinney
D. H. Moehring
W. H. Haskin
A. E. Johnson
E. L. Hardt
Donald E. Jones
T. W. Litchfield

RECEIVED
JUN 25 1969
OFFICE OF
STATE HIGHWAY ENGINEER

FORM S-90 (12-57)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

RECEIVED
JUN 24 1969
LEGAL & RIGHT OF WAY

Portland, Oregon
June 23, 1969

To: Mr. Jack Sollis
P.U.C. & R.R. Section
Legal Division
Salem

SUBJECT: East Fremont Interchange
Union Pacific Clubhouse Bldg.

At your request, this afternoon I met with Mr. C. N. Christiansen, Director of the Building Inspection Division, City of Portland, to discuss the City's requirements for moving the Union Pacific Clubhouse Building.

Mr. Christiansen told me that in order to determine his department's requirements for this move the first step would be to apply for a moving permit. The Highway Department could make this application.

When his department processes this application it will be required that the building be made to conform to the current building code for the area. In addition to structural, mechanical, and electrical requirements, the building would have to conform to fire resistance for Fire District No. 2. This means that it would have to have a one-hour fire rating. This can be accomplished by either providing interior sprinkling for the building or by applying gypsum wallboard to the interior. It is my understanding that providing sprinkler protection for buildings can be unpopular with the building owner, since it requires an oversize water meter with the attendant high monthly minimum charge.

If the permit applicant wishes, he can file an appeal to the Building Code Board of Appeal. This board is composed of three persons--a contractor, an architect and a layman--and is advised by Mr. Christiansen and by the City Fire Marshal. Mr. Christiansen told me that he thought it might be possible that the Appeal Board would waive all or part of the code requirements in this case, since the building will continue to have the same usage and it will remain on the owner's property. He was very careful to point out, however, that this decision would be up to the board.

If the applicant is not content with the Appeal Board's decision in this matter, it could be referred for final action to the City Council of the City of Portland.

To start this chain of events moving, the Highway Department should apply for a permit to move the clubhouse building.

A. E. Johnson
Metropolitan Engineer
by Edward L. Hardt
Edward L. Hardt
Assistant Metropolitan Engineer

ELH:lh
cc: William Haskin
Donald Jones

NOTED

W. H. HASKIN

FORM S-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

5821 N. E. Glisan Street
June 20, 1969

SUBJECT: File No. 36087

To: Mr. W. H. Haskin
Property Manager
State Highway Building
Salem, Oregon 97310

RECEIVED
JUN 23 1969
LEGAL STAFF OF HWY

A meeting was held this afternoon with Glen Tabor, Union Pacific Projects Engineer. The meeting concerned the moving of the Union Pacific clubhouse from its present location on Larabee Avenue to a new location at North Harding Avenue and Interstate.

Mr. Tabor informed me that the State has not signed and returned the right of entry permit. Until this permit has been returned, no action will be taken to cancel the leases on the property to which the clubhouse is proposed to be moved.

Mr. Tabor also informed me that prior to any moving, it would be necessary that the State furnish the Union Pacific complete plans and specifications of how the move is to be made and the condition in which the building will be set up after moving. This includes details concerning the installation of utilities and their connection at the new location. It also includes the determination of the meeting of code specifications required by the City of Portland.

This approval by the Union Pacific would take approximately three weeks as these plans and specifications must be reviewed by the head office in Omaha.

If inspection of the premises are necessary, contact with the following persons will make entry possible.

Please advise if further action is to be taken by this office at this time.

G. M. Tabor	227-7771	Ext. 2591
Fred Deakin	"	2592
Dick Welk	"	2425
Tom Scanlon	"	2523

Donald E. Jones
District Property Agent

RECEIVED
JUN 12 1969

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

FOR FILING
I-405-8(4)303
7298

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: June 9, 1969

In reply refer to: 08-35.1

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

Klabzuba

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
R-36087, Union Pacific Railroad

The Permit-of-Entry proposed by the Union Pacific Railroad Company on the subject project has been reviewed in accordance with your request of June 3 and is acceptable as to form.

The determination of value in respect to Federal participation will be subject to review at a later date. It is understood that credit for the locker building will not be less than $11,093.

When negotiations are sufficiently firm to be binding upon both parties and you have terminated Federal condemnation proceeding, please advise.

6-11-69
REFERRED TO
Fremont - Barbu - Morgan - Robb - Lobi
BY ASST. STATE HWY. ENGR.
Edwards

NOTED
TOM EDWARDS

RECEIVED
JUN 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JUN 5 - 1969
FREIGHT DIVISION

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)264
7298

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

June 3, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage St., NE.
Salem, Oregon 97310

Attention: Charles Mathias

Dear Mr. Simpson:

Re: R-36087
Union Pacific Railroad
Fremont Bridge Section
Stadium Freeway

You have already been furnished with a copy of the Permit of Entry proposed by Union Pacific Railroad Company on the above file. We would appreciate your formal concurrence with the terms and conditions of the Permit of Entry as quickly as possible in order that we may advise your Washington D. C. office to terminate their condemnation proceedings, and we may commence building a new yardmen's locker building.

Very truly yours,

G. E. ROHDE
Chief Counsel

By
JACK L. SOLLIS
Staff Attorney

JLS:krk

cc: Forrest Cooper
F. B. Klaboe
F. C. McKinney
T. W. Litchfield

RECEIVED
JUN 3 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 16 1969
FOR FILING

E
ARTMENT

• SALEM, OREGON • 97310 • Phone 364-2171

May 19, 1969

Mr. L. James Bergmann
General Attorney
Union Pacific Railroad Company
727 Pittock Block
Portland, Oregon 97205

Re: 36087
Union Pacific Railroad Co.
Fremont Bridge Section
Stadium Freeway

Dear Mr. Bergmann:

Returned herewith please find three copies of your proposed Permit of Entry on which I have made certain deletions and amendments.

The following items should also be considered:

1. It is not the intent of the State Highway Department to construct a new yardmen's locker building. It will have to be constructed by the Railroad. We will reimburse you for the entire cost of constructing a new yardmen's locker building subject to a credit in accordance with the provisions of PPM 30-4, Paragraph 4H 2.

2. Paragraph 1A (b) could possibly be revised to read as follows:

"The amount of compensation to be paid the Railroad shall be as agreed upon between the parties. In the event that the amount of compensation to be paid for the easement, the land use restrictions, and the national carloading building is not agreed upon between the parties and the amount of just compensation is determined by a condemnation proceeding, Section 1B and Section 9 shall not be binding upon second party and shall not be operable. In the event the amount of compensation to be paid the Railroad cannot be agreed upon between the parties, the said amount shall be as determined by condemnation proceeding to be filed by either second party in the Circuit Court in the State of Oregon for

NOTED
TOM EDWARDS

NOTED
TOM EDWARDS

the County of Multnomah or by the United States Government in the Federal District Court for Oregon."

3. Section 9 should be reworded as follows:

"Second party will withdraw any objection to the vacation of public streets adjacent to and in the vicinity of the easement area by Railroad provided that the portions of said streets as shown colored in blue in said Exhibit "E", attached hereto and by this reference made a part hereof, are made subject to the land use restrictions as set forth in Exhibit "D"."

4. As regards the installation of signal, communication, or power line and facilities, we will discuss the matter of the microwave facilities at the meeting; and it will be necessary that you bring all plans and, if possible, a definite construction date for these facilities.

I have not discussed the new wording of Paragraph 1A (b) with the Highway Department Administration or the Bureau of Public Roads and cannot, therefore, make a definite commitment as to its terms. It is my understanding that unless the entire matter is settled outside of court the sale of the four lots and the matter pertaining to the vacation of streets will not be operable parts of the agreement.

Unless I hear from you to the contrary, I shall expect you at 1 o'clock Thursday, May 22.

Very truly yours,

G. E. ROHDE
Chief Counsel

By
JACK L. SOLLIS
Staff Attorney

JLS:krk

Enclosures

cc: Tom Edwards
R. E. Simpson
T. W. Litchfield
G. E. Rohde
Barry Rutledge

RECEIVED
MAY 20 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 16 1969
FOR FILING

[illegible]MENT

SALEM, OREGON • 97310 • Phone 364-2171

February 13, 1969

Mr. L. James Bergmann
General Attorney
Union Pacific Railroad Company
727 Pittock Block
Portland, Oregon 97205

Re: Your file 9001-32-14-A
7370
Our file R-36087
Union Pacific Railroad
Fremont Bridge Section
Stadium Freeway

Dear Mr. Bergmann:

This will acknowledge receipt of your letter of January 15, 1969, relating to the above-captioned matter.

I can appreciate your feelings as regards the yardmen's locker building and your interpretation of PPM 30-3. However, you must realize that we do not have the option of interpreting PPM 30-3 but we must accept the interpretation given it by the Department of Transportation and their interpretation requires a contribution by the Railroad of approximately $12,000 for the construction of a new yardmen's locker building and it also has been interpreted to require the construction of a new building where the moving or relocating of an existing building to be more expensive than the construction of a new one. Therefore, our position on this particular item must remain the same.

NOTED
R. L PORTER

As regards the street vacation and the sales of property in the area, I am sure that we would be willing to make a definite commitment on these matters if all the other matters can be resolved.

I must advise you at this time that the matter has been referred to the Federal Government for condemnation. However, if you still believe that it is possible to work out the problems and have a meeting of the minds as regards a permit of entry, we would be most happy to review the permit of entry that you have drafted.

Very truly yours,

G. E. ROHDE
Chief Counsel

By

JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:phm

cc: R. L. Porter
F. B. Klaboe
G. E. Rohde
F. C. McKinney
C. Mathias

RECEIVED
FEB 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

ARTMENT

NOTED
R. L. PORTER

[redacted] HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

January 9, 1969

Mr. L. James Bergman
General Attorney
Union Pacific Railroad
727 Pittock Block
Portland, Oregon 97205

Re: Your file 9001-32-14-A 7370
Our file R-36087
Union Pacific Railroad
Freemont Bridge Section
Stadium Freeway

Dear Mr. Bergman:

Your letter of December 20, 1968, containing counter-proposals to our letter of November 18, 1968, has been received and considered.

In view of the urgency of establishing the right of the State to proceed with this multimillion dollar bridge project and provide the connecting link to the freeway system in Portland, the Department cannot recommend your counterproposals. To accept your condition that the permit of entry be without prejudice to continue your proceedings before the Public Utility Commissioner and subsequent appeal would, in our opinion, so confuse the legal rights of the State to proceed as to render its position untenable.

Nor would we be willing to recommend binding the Commission to selling other land and vacating streets as a part of the permit of entry. We would, of course, be willing to continue discussions of these matters as a part of any settlement which could be reached for acquiring the needed easement rights.

I must therefore request your reconsideration of our original proposal contained in our letter of November 18, 1968. In so doing I feel obligated to call to your attention an item which may have not been entirely clear. In

our previous letter it was stated that "we will pay for the cost of constructing a comparable yardmen's locker building and also the cost of relocating the clubhouse building within the provisions of PPM 30-3." You will note that under paragraph 4.h(2) of the aforementioned PPM that a credit is to be given the project in the amount of depreciation accrued against the structure being replaced, plus the value of materials as recovered from the structure. Since the yardmen's locker building is to be reconstructed at a different location, the accrued depreciation and value of materials to be recovered has been estimated by the State appraisers at approximately $12,000. This sum, under the PPM, would have to be allowed as a credit against the cost of reconstruction of this building.

I would appreciate your reconsideration of our proposal of November 18, 1968, in light of the above, and a reply by January 23, 1969, as to your decision. As indicated we must have this early determination inasmuch as we must initiate action now to assure ourselves that the contemplated project can proceed as scheduled.

Very truly yours,

G. E. ROHDE
Chief Counsel

GER:ks

bcc: R. L. Porter
F. B. Klaboe
R. E. Simpson
Jack Sollis

RECEIVED
JAN 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

ON STATE HIGHWAY DEPARTMENT

NOTED
R. L. PORTER

INTER-DEPARTMENT CORRESPONDENCE
Salem, Oregon
December 24, 1968

Fre. B. Sec

To: Mr. Jack Sollis
Staff Attorney

SUBJECT: R-36087 - Fremont Interchange
Marquam Bridge Section
Stadium Freeway

O f f i c e

In your absence I attended a meeting which was previously scheduled with representation of the Bureau of Public Roads and Mr. Klaboe relative to the negotiations with the Union Pacific Railway on the above subject project and file.

The meeting was held in Mr. Klaboe's office this morning at 10 o'clock. In attendance were Division Engineer Simpson, Mr. Brooke and Mr. Mathias of his office.

Discussion was relative to the State's letter of offer, the alternative procedure in our letter of November 18, 1968 and the Union Pacific's reply of December 20.

One matter involved the yardmen's locker building which the State agreed to rebuild because it apparently cannot be moved due to the fact it is a concrete block type structure that cannot in a practical manner be moved as is. Apparently it was agreed the letter of November 18 was technically correct in that the letter said the State would "pay the cost of constructing a comparable building - - within the provisions of PPM 30-3".

However the PPM is written to indicate that in such event the benefits from the new construction shall be allowed as a credit. It seems these credits which should be recovered from the Railroad have been computed as some $12,800. It was thought that this feature should be made specifically known to the Railroad in that the State must perforce proceed in such instances only in accordance with the PPM's which it is required to work under.

It was generally conceived that any agreement at this stage (permit of entry) should not be tied to the State conveying land it owns, or agreeing to cooperate in vacation proceedings, such concessions should only

be made as a part of a general settlement of the case. This can be negotiated as well after a permit of entry or filing a condemnation case as before.

The third feature is the requirement that the Railroad may, without prejudice, continue its proceedings before the PUC and appeal therefrom if it desires. This feature leaves the legal picture so up in the air that it would not be possible to agree to the same. No one could, under such circumstance, predict what the future outcome of actual construction or State condemnation would be.

The agreed step to be taken at this time is to notify the Railroad that due to scheduling and federal requirements we must have a permit of entry, free of conditions, in our hands at an early date (2 weeks or so) or we must certify for BPR condemnation. This conclusion was also cleared with Mr. Porter with them the matter was discussed after the close of the meeting with BPR representatives.

The Bureau people conceive that negotiations should be from a strong position and that federal condemnation is strongest position that can be taken. They are also confident that such will give the greatest assurance of being able to let a construction contract on schedule.

Please prepare the appropriate letter.

G. E. ROHDE
Chief Counsel

GER:hg
cc - Mr. R. L. Porter
Mr. F. B. Klaboe
Mr. F. C. McKinney
Mr. D. H. Moehring

RECEIVED
DEC 26 1968
OFFICE OF
STATE HIGHWAY ENGINEER

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

LAW DEPARTMENT

December 20, 1968

727 PITTOCK BLOCK
PORTLAND, OREGON 97205

227-7771

9001-32-14-A
7370

CHARLES ... ATTORNEYS

Mr. G. E. Rohde
Chief Counsel
Oregon State Highway Commission
Salem, Oregon 97310

re: Your file No. R-36087 - Fremont Interchange
Marquam Bridge Section - Stadium Freeway

Dear Mr. Rohde:

This will acknowledge receipt of your formal letter offer dated November 18, 1968, together with transmittal letter of the same date, making an offer of compromise in connection with the above captioned matter.

The Railroad will grant the State a permit of entry onto our property at Albina, Portland, Oregon, in connection with the construction of east side approaches to the Fremont Bridge as follows:

1. To relocate the Railroad's clubhouse building and to construct a comparable yardmen's locker building; and

2. To construct the elevated highway structures and supporting bents and other necessary and related facilities captioned above.

The permit of entry for item 1 shall be effective upon execution thereof, and the permit of entry for item 2 shall be effective June 1, 1969.

In the permit of entry, the State will agree (1) to sell to the Railroad, subject to easement for the highway structures, all that portion of Block 1, John Brendle's Addition to the Town of Albina, City of Portland, Multnomah County, Oregon, owned by the State, for an amount to be agreed upon, but not to exceed an amount per square foot, equal to the difference between the value of the land and the value of your easement for the overcrossing structure, and (2) to cooperate with the Railroad in any petition by the Railroad for vacation of public streets and alleyways in the vicinity of the overcrossing structure.

The permit of entry and supporting exhibit prints and engineering estimates are being prepared, and we should be in a position to furnish them within thirty days. The permit of entry is being patterned after our standard highway agreement provisions, except that, of course, no easements will be granted, and it will be modified to incorporate the relocation and construction of the two buildings referred to and the relocation of trackage and related facilities in North Loring Street.

The permit of entry shall be without prejudice to our rights in any proceeding before the Public Utility Commissioner of Oregon. The Railroad specifically reserves the right to continue its efforts to secure a more acceptable order in Oregon Public Utility Commissioner Cause No. SXF-430, to appeal from the present order, and to file any further application or petition with the Public Utility Commissioner or other regulatory body which in the judgment of the Railroad is necessary or appropriate to protect the interests of the Railroad.

We are not in a position to accept your offer of $167,460 for payment of the easements and value of the National Carloading building, and it is understood that if a sum cannot be agreed upon as compensation for the property to be taken, you will commence an action in the Circuit Court of Multnomah County to determine the value of said property.

Very truly yours,
RANDALL B. KESTER

By L. J. Bergmann

LJB:mlc

RECEIVED
DEC 23 1968
OFFICE OF
STATE HIGHWAY ENGINEER

:dum

er, State Highway Engineer

Division Engineer

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: October 23, 1968

In reply refer to: 08-35.7/410.3

Rohde

SUBJECT: Oregon Project I-405-8(4)303
Fremont ~~Interchange~~ Section
File 36087, Union Pacific Railroad

Fremont Bridge

Chief Counsel G. E. Rohde's letter of October 10, 1968 forwarded for our approval a change in the proposed use restrictions covering the right of way of limited vertical dimension to be secured from the Union Pacific Railroad. The submission relates the construction of buildings within the right of way to the Building Codes of the City of Portland. This represents a change from the original submission which was approved by our Washington office. While this change must be approved in Washington, we believe it can be submitted at the time the Union Pacific file is forwarded for possible Federal condemnation. We do not anticipate any problem in securing approval of the proposed changes in the use restrictions. Our review indicates that the use restrictions should include safeguards to prevent unreasonably objectionable smoke, fumes, vapor or odors to rise above the grade line of the highway. Please refer to item 9 in attachment 3 of PPM 80-5. Inclusion of such a protective clause is not intended to restrict in any way the railroad's present use of the property but to provide safeguards in case any buildings are constructed under the bridge structure as permitted by the use restrictions.

Dick Fahlen 10-24-68 copies to Litchfield Young 10-25-68

NOTED
F. B. KLABOE

RECEIVED
DEC 27 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 24 1968
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

7Re.13n.2c

October 10, 1968

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Re: File R-36097
Union Pacific Railroad
Fremont Interchange
Sunset Interchange Section
Stadium Freeway
I 405-3 (4) 303

Dear Mr. Simpson:

We have previously requested and received approval of use restrictions on the above file. However, since receiving approval, we have discussed the matter with the City Fire Marshal and, at his suggestion, have reworked the use restrictions to tie them into the Building Code of the City of Portland. Therefore, I am now submitting a new set of use restrictions on which I request approval.

Along with three copies of this letter, I am also sending three copies of the Building Code of the City of Portland, to which the use restrictions are tied.

The use restrictions are as follows:

In conducting operations in the easement area, the owner, its successors, legal representatives and assigns shall not:

1. Construct any buildings or structures that do not meet the Building Codes of the City of Portland in effect, as revised on September 30, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2 except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the buildings.

c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in height in determining the basic allowable area for buildings as set forth in Table No. 5-C of said Building Code.

2. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

3. Manufacture or store on the ground or in buildings any flammable, volatile or explosive substances.

4. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the owner's property adjacent thereto.

5. Build any buildings or structures above the highway structures constructed on or above the easement area.

Very truly yours,

G. E. ROHDE
Chief Counsel

GER:JLS:plm

Enclosures

RECEIVED
SEP 16 1969
FOR FILING

File copy

I 405-8(33)-4
7218

February 6, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Re: File R-36087
Union Pacific Railroad
Fremont Interchange
Sunset Interchange Section
Stadium Freeway
I 405-8 (4) 303

Dear Mr. Simpson:

It has now become necessary that the State Highway Department turn the acquisition of this file over to the Department of Transportation, pursuant to the provisions of PPM 80-7. Under this acquisition the State wishes to acquire a permanent easement over six parcels of land from the railroad for the construction of the East Fremont Interchange.

ORS 374.020 states as follows: "No throughway shall be established upon or across the tracks, yards, station grounds or other operating properties of any common carrier railroad, or upon or across any industrial or business property served by railroad industrial trackage, or upon or across any property at such a location as to unduly interfere with the reasonable access of shippers, passengers or the public to railroad depots, team tracks or other facilities for receiving or delivering freight or passengers transported by railroad unless the State Highway Commission and the railroad agree on a proposed throughway project, or unless the Public Utility Commissioner finds by order, upon petition of the State Highway Commission, after notice to the railroad and hearing in accordance with his rules of practice, that public convenience and necessity so require."

The State Highway Department has complied with the provisions of the above statute to the extent that it has petitioned the Public Utilities Commissioner for a certificate of convenience and necessity. The State has recently secured an order from the Public Utilities Commissioner granting it a certificate of convenience and necessity. The railroad did not file an appeal and the appeal time has expired. However, the statutes and rules of the Public Utility Commissioner do not provide any cutoff time for the filing of a motion for a

rehearing and the railroad has stated that they will file such a motion. This would hold up the filing of the condemnation action until after the time scheduled for the letting of the contract on this job.

Because of the fact that the State needs possession by June 1, 1969, in order to award contracts as scheduled, it cannot acquire the easements in time to meet its contract schedule. This is the last acquisition necessary in order to complete the connection between the Stadium Freeway and the Minnesota Freeway. The project is being let in four contracts. The bridge piers are being built now and the West interchange and bridge structure will be let in early 1969 and the East interchange in August of 1969. The total cost of these four projects will be approximately 70 million dollars. None of the facilities can be used until the East interchange is built and it cannot be built without the acquisition of this file.

The State wishes to acquire a permanent easement for the construction of the East Fremont Interchange and, also, is imposing use restrictions on the land over which it is acquiring the permanent easement. There will be no access to the structure from the adjacent land but there will not be any access control at ground level.

The State Highway Department will pay, at such time as it is required to by the Director of Bureau of Public Roads, an amount equal to 10% of the costs incurred in acquiring the permanent easement. The State will also accept title to the permanent easements and will maintain the structures constructed thereon.

In compliance with the requirements of PPM-80-7 paragraph 3a.(2), please find enclosed eight copies of the legal description of each tract to be acquired.

In compliance with the requirements of paragraph 3a.(3), please find enclosed eight copies of a map and also eight copies of an aerial photograph which has been blown up to scale and which shows the taking, and larger tract and all the improvements of the railroad located thereon. I feel that this aerial photograph is by far the best way to indicate the location of the buildings, tracts and other structures of the railroad as they are affected by our taking.

In conformity with the requirements of paragraph 3a.(4), please find enclosed three copies each of two appraisals of the property, along with three copies of our review.

In compliance with the requirements of paragraph 3a.(5), enclosed please find three copies of title evidence and, at this time, I believe this is all that is necessary that we furnish. Any additional title information which may be required will be furnished upon request.

In conformity with the requirements of 3a(6) (a); the information required by this section is included with the description.

In conformity with the requirements of 3a.(6) (b), there are 19 files on the project. We have optioned six of them and filed condemnation cases on seven, four of which were settled and two of which have been tried. We have a permit of entry on three files. There are two files on which we are seeking use restrictions outside the right of way line which have not as yet been closed. The above files total 18, leaving the subject file as number 19.

In conformity with the requirements of 3a.(6) (c), this matter has been taken care of in the descriptions.

In conformity with the requirements of 3a.(6) (d), this matter has been taken care of in the descriptions.

In conformity with the requirements of 3a.(6) (e), there will be complete access control as to the structures. There will be no access control at ground level and the railroad will be allowed to utilize the parcels over which we are acquiring the permanent easements, subject to the following restrictions: (Please note: these restrictions are different from those already approved by the Washington D. C. office and will need new approval.)

In conducting operations in the easement area, the owner, its successors, legal representatives and assigns shall not:

1. Construct any buildings or structures that do not meet the Building Codes of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

   a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2; except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

   b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 70 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes vapor or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the owner's property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

All the necessary information for the condemnation of the easement is contained herein or will accompany this letter.

The State Highway Department hereby formally requests the Department of Transportation to acquire the necessary interest in lands and possession of the property as hereinabove set forth.

Very truly yours,

FORREST COOPER
State Highway Engineer

FC:djg -JLS
Encls

RECEIVED
SEP 18 1969
FOR FILING

I-405-5(22)-54
7-21

E Transmittal Ltr
Spec

November 18, 1968

Oregon-Washington Railroad
& Navigation Company
Pittock Block
Portland, Oregon

Union Pacific Railroad Company
Pittock Block
Portland, Oregon

Re: Our File No. R-36097 - NK 603
Fremont Interchange-
Marquam Bridge Section
Stadium Freeway

Gentlemen:

Enclosed herewith is a formal letter of offer from the Oregon State Highway Commission for easements across six parcels of land and the purchase of three buildings located within the easement area described in said letter. The formal letter is tendered since we are going to request that condemnation proceedings be commenced by the Federal Government.

The three buildings concerned are the National Carloading building, the railroad clubhouse and the yardmen's locker building. Under no circumstances, as we presently view this matter, can we reimburse the Railroad for the relocation of the National Carloading building, as it is not considered to be operating property.

As a possible compromise we are willing to recommend to the Commission that, if you will issue a permit of entry acceptable to the State giving the State possession of the six parcels of land, with the above-mentioned buildings vacant on June 1, 1969, and consenting to the State commencing a condemnation proceeding in the Circuit Court of Multnomah County to determine the value of the easement and the National Carloading building, we will pay for the cost of constructing a comparable yardmen's locker building and also the cost of relocating the clubhouse building within the provisions of PPM-30-3. Under the above procedure we would also recommend to the

Commission the payment to you of the sum of $167,460.00 as compensation for the easements and the National Carloading building.

I should also advise that when the Federal Government commences a condemnation proceeding to acquire the buildings and easements, they will seek a court order granting the State possession of the buildings and easements on June 1, 1969. It would then be your responsibility to provide substitute buildings to replace those within the taking.

If you have questions regarding this proposed compromise or there are any points that are not clear, please do not hesitate to contact me.

Very truly yours,

G. E. ROHDE
Chief Counsel

GER:JLS:ae

Filed

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

November 18, 1968

CERTIFIED MAIL

Oregon-Washington Railroad
& Navigation Company
Pittock Block
Portland, Oregon

Union Pacific Railroad Company
Pittock Block
Portland, Oregon

Western Transportation Co.
550 N. W. Front Avenue
Portland, Oregon

National Carloading Corporation
5550 N. Basin
Portland, Oregon

City Bank Farmers Trust Company
399 Park Avenue
New York, New York 10022

File No. R-36087
Fremont Interchange-
Marquam Bridge Section
Stadium Freeway

Gentlemen:

The State Highway Commission has found it necessary to acquire a permanent easement across the following described real property so that the Fremont Interchange-Marquam Bridge Section of the Stadium Freeway may be properly located, constructed and maintained. The easement and real property across which this easement is required is as follows, to wit:

A permanent easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary and related facilities upon and across the following described parcels of real property:

Parcel No. 1:

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the center line of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which center line is described as follows:

Beginning at Engineer's center line Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the center line of N. Mississippi Avenue with the center line of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36° 39' East) 440 feet; thence North 31° 09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34° 54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88° 31' 30" East) 1308.67 feet to Engineer's center line Station "SW" 326+63.33.

ALSO that portion of said Lots 4 and 5, lying Southeasterly of said connection center line.

Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 8,650 square feet, more or less.

Parcel No. 2:

A parcel of land lying in Lot 7, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the center line of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection center line is described as follows:

Beginning at Engineer's center line Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the center line of N. Mississippi Avenue with the center line of N. Stanton Street; thence on an 11,459.16 feet radius curve left (the long chord of which bears South 44° 26' West) 913.33 feet; thence South 42° 09' West, 362.16 feet to Engineer's center line Station "WE" 343+61.92.

ALSO that portion of said Lot 7, lying Northwesterly of said center line.

Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 5,260 square feet, more or less.

Parcel No. 3:

A parcel of land lying in Lots 1 and 2, Block 2, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the center line of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection center line is described in Parcel No. 2.

ALSO that portion of said Lot 1, lying Northwesterly of said center line.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

Parcel No. 4:

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

Parcel No. 5:

A parcel of land lying in the NW¼ of Section 27, Township 1 North, Range 1 East, W. M., Multnomah County, Oregon; the said parcel being that portion of said NW¼ lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the center line of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway which connection center line is described in Parcel No. 1 and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the center line of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection center line is described in Parcel No. 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

Parcel No. 6:

A parcel of land lying in Block 74, ALBINA in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet.

EASEMENT AREA
WITHIN THE LAND DESCRIBED

In conducting your operations in the easement area, you, your successors, legal representatives and assigns shall not:

1. Construct any buildings or structures that do not meet the Building Codes of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

   a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2; except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

   b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

   c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be

one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes vapor or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and your property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

I have been authorized by the State Highway Commission to offer to you, and do hereby offer and tender to you, the sum of $213,000.00 for a conveyance of the said easement rights to the State of Oregon, by and through its State Highway Commission, free and clear of all taxes, liens and encumbrances, including the proportionate part of the taxes for the fiscal year during which the State takes possession of or receives title to said easement rights, whichever is the earlier.

Without your immediate acceptance of this offer, I have been instructed to request such proceedings as may be necessary to acquire the above easement rights. The time and services of the right of way agent who has negotiated with respect to the State's acquisition will continue to be available toward arranging the details of transaction should you desire to conclude a settlement on the basis of this offer. I sincerely hope that such a settlement may yet be reached so that I will not have to request legal action.

Yours very truly,

G. E. ROHDE
Chief Counsel

ALR:al

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SEP 16 1969
FOR FILING

I-405-8(22)3C-1
7238

7Re. Br See

1985

I-405-8(4) 3p3

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 19, 1967

To: Mr. F.B. Klaboe
Assistant State Highway Engineer
Building

SUBJECT: Assignment: FBK-1985
Air Easements and R/W Data
Fremont Bridge Section
Stadium Freeway (I-405)
City of Portland - Multnomah County

Subject assignment requested a rough draft reply, however, data for such a reply has been provided to Jack Sollis as requested by assignment FBK-1973.

As requested by the Bureau of Public Roads, a new file (42134) has been set up for the additional permanent easement on parcel 35109. A revised right of way sheet was prepared and submitted to the BPR covering this additional acquisition. This was approved by letter dated October 10, 1967.

If further information or action is desired please advise.

F. D. Morgan
Construction Engineer

By A.D. Olson
A.D Olson
Urban Engineer

NOTED
F. B. KLABOE

ADO:jr

RECEIVED
OCT 19 1967
OFFICE OF
STATE HIGHWAY ENGINEER

GOVERNMENT

tndum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

)oper, State Highway Engineer

DATE: October 13, 1967

In reply refer to: 08-35.7

Assistant Division Engineer

Salem, Oregon

Fremont Bridge.

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section - Parcel 35107
City of Portland - Dock Commission

Staff Attorney Jack L. Sollis' letter of October 9, 1967 forwarded to us proposed use restrictions covering Parcel A of the above-mentioned file.

Our personnel have discussed with Mr. Sollis the No. 1 use restriction concerning the words "in bulk." It is our understanding that this terminology is to be removed from the use restriction. If the city desires to retain this portion of the terminology, a definition as to the meaning of "in bulk" will be secured. The use restriction should include a clause precluding any rights of access of any nature between the roadways of the highway structure from the city's property adjacent thereto.

In discussions with Mr. Sollis it is our understanding that there is no need to include access across the easement area for the purpose of maintenance and reconstruction of the bridge, as such access will be provided across Parcel 35105 and across the permanent easement to be secured from the city for the bridge pier.

As you are aware, paragraph 4, PPM 80-5 requires that right of ways of limited vertical dimension with private or public facilities occupying the space above and/or below the right of way must be approved by the Director in Washington, D.C.

Edwards
Rohde
Litchfield
Morgan
Rathbun
Young 10-17-67
Porter-10-18-67

RECEIVED
OCT 16 1967
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
TOM EDWARDS

NOTED
TOM EDWARDS

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GOVERNMENT

ndum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

oper, State Highway Engineer

DATE: October 13, 1967

In reply refer to: 08-35.7

Assistant Division Engineer

Fremont Br
Lee

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
Parcel 36087, Union Pacific Railroad Company

Staff Attorney Jack L. Sollis' letter of October 9, 1967 forwarded for our preliminary review proposed use restrictions concerning the acquisition of an air easement for the Fremont Bridge over railroad property. We have reviewed the restrictions and concur that it would be proper to include them in the easement. As you are aware, paragraph 4 of PPM 80-5 requires a right of way of limited vertical dimension with private or public facilities occupying the space above and/or below the right of way must be approved by the Director in Washington, D. C.

10-17-67
Edwards
Rahde
Litchfield
Morgan
Nelebaert
Young

Per Ltr
10-18-67

NOTED
TOM EDWARDS

RECEIVED
OCT 16 1967
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

oper, State Highway Engineer

DATE: October 10, 1967

In reply refer to: 08-35.7

Division Engineer, by C. J. Mathias, Div R/W Officer

Fremont Br Sec

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section

Attached is approved right of way plan sheet no. 3 which was forwarded to this office by Mr. L. H. Young's letter of October 3, 1967.

Approval is with the understanding that the permanent easement use restriction to be acquired under File 42134 will conform to your bridge consultant's recommendations concerning building distance restrictions for fire protection.

A field inspection indicated that excavation is beginning for a building improvement to be placed upon the northerly portion of File 42134. In order to conserve highway funds and to avoid hardship on the property owner, immediate steps should be taken to initiate negotiations to acquire the needed easement and prevent any construction that does not conform to the bridge consultant's requirements. This information was brought to the attention of Mr. Oakes on October 10, 1967.

NOTED
F.B. KLABOE

10-12-67

REFERRED TO
Merchant - Morgan - Young
BY ASST. STATE HWY. ENGR.
Please take proper action

RECEIVED
OCT 11 1967
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: September 20, 1967

In reply refer to: 08-35.7

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(4)303, Fremont Bridge Section

Returned are approved copies of revised right of way plan sheets nos. 2, 3, and 4 for the above-mentioned project.

Regarding Parcels 36087, 35105, and 35107 it will be necessary for the State to submit for approval of the Director in Washington, D.C. acquisition of rights of way of limited vertical dimensions, as required by paragraph 4c of PPM 80-5. Action on your submission should be initiated through this office as soon as your plans are solidified to the point that you can provide the information needed as outlined in Attachment 3 of PPM 80-5.

Plan sheet no. 3, Parcel 35109, which is outlined in blue, does not comply with your bridge consultant's recommendation as to adequate right of way for fire protection of the structure. You should take immediate steps to prepare plans and secure our approval to acquire the additional needed width for the area lying westerly of North Loring Street. It is our understanding that the area immediately adjoining Parcel 35109 is unimproved.

Enclosures
Plan sheets

Routing

Morgan
Decker
Bond
Barbee
Walker
Glenn
Pease
Morelock
Trout
Scott
Wills
Litchfield
Olsen

RECEIVED
SEP 22 1967
CONSTRUCTION
DIVISION

RECEIVED
SEP 22 1967
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
SEP 18 1969
FOR FILING

I-405-1(4)-001
7018

August 7, 1967

Fremont Br Sec

Mr. W. G. Johnson, Supt.
Union Pacific Railroad Company
2525 N. Larrabee Avenue
Portland, Oregon 97227

Re: File R-36087
Union Pacific Railroad Company
Fremont Interchange-Sunset Interchange Section

Stadium Freeway
Multnomah County

Dear Mr. Johnson:

A review of the file indicates that no formal offer has been made since the taking was revised several months ago. Therefore, this letter formally states the offer so that you may at your earliest convenience give us your decision on whether to accept our offer or not.

The State Highway Commission has found it necessary to acquire permanent easements across the following described real property so that the Fremont Interchange-Sunset Interchange Section of the Stadium Freeway may be properly located, constructed, improved and maintained. The easements and real property across which these easements are required are as follows, to-wit:

A perpetual and exclusive easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary related facilities over, upon and across the following described parcels of real property:

PARCEL 1:

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which centerline is described as follows:

Beginning at Engineer's centerline Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36°39' East) 440 feet; thence North 31°09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34°54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88°31'30" East) 1308.67 feet to Engineer's Centerline Station "SW" 326+63.33.

Also that portion of said Lots 4 and 5, lying Southeasterly of said connection centerline.

(Bearings used herein are based upon the Oregon Coordinate System, North Zone.)

The parcel of land to which this description applies contains 8,650 square feet, more or less.

PARCEL 2:

A parcel of land lying in Lot 7, Block 1, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described as follows:

Beginning at Engineer's centerline Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on an 11,459.16 foot radius curve left (the long chord of which bears South 44°26' West) 913.33 feet; thence South 42°09' West, 362.16 feet to Engineer's centerline Station "WE" 343+61.92.

Also that portion of said Lot 7, lying Northwesterly of said centerline.

(Bearings used herein are based upon the Oregon Coordinate System, North Zone.)

The parcel of land to which this description applies contains 5,260 square feet, more or less.

PARCEL 3:

A parcel of land lying in Lots 1 and 2, Block 2, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

Also that portion of said Lot 1, lying Northwesterly of said centerline.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

PARCEL 4:

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

PARCEL 5:

A parcel of land lying in the NW¼ of Section 27, Township 1 North, Range 1 East, W.M., Multnomah County, Oregon;

the said parcel being that portion of said NW¼ lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway which connection centerline is described in Parcel 1 and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

PARCEL 6:

A parcel of land lying in Block 74, Albina in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet.

RESERVING, HOWEVER, to the Railroad the following described rights in said perpetual and exclusive easement area:

1. New buildings of fireproof construction, as provided by the building code of the City of Portland, may be constructed within the

exclusive easement area if the proposed construction meets the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967, and the plans have been furnished and notification is made to the State Highway Commission.

2. Railway tracks may be constructed, operated, maintained and reconstructed within the exclusive easement area in accordance with Oregon Public Utility Commissioner's regulations. The State Highway Commission shall be notified of the location of railway tracks constructed hereafter within the exclusive easement area. Railway tracks as relocated pursuant to an agreement between Railroad and the State Highway Commission and existing tracks not needing relocation may be operated, maintained and reconstructed.

3. Vehicular and pedestrian roadways and parking areas for motor vehicles may be constructed, used and maintained within the exclusive easement area.

4. Overhead and underground electric, telephone and telegraph circuits, water, oil, gas, steam, air, sewer and drainage lines and other such facilities required in your operations, as they are presently located or as they are relocated pursuant to an agreement in order to conform with the construction of the highway structures, may be operated, maintained, altered and reconstructed by Railroad within the exclusive easement area and additional such facilities may be constructed, operated, maintained and reconstructed within said exclusive easement area; provided that all applicable state and federal safety regulations are complied with. The State Highway Commission shall be notified of the location of the additional facilities.

5. Commodities of such kinds and in such quantities as are allowed pursuant to Interstate Commerce Commission regulations may be handled in Railroad's normal operations. There shall be no storage of inflammable, volatile or explosive substances within the exclusive easement area.

6. Passage may be had across the exclusive easement area at ground level to serve Railroad's property on each side of the exclusive easement area and such other use, when in Railroad's normal operations may be made of the exclusive easement area which is not inconsistent herewith.

In exercising the above reserved rights and in conducting operations on the exclusive easement, Railroad, its successors, legal representatives and assigns, shall comply with the following restrictions:

1. No buildings shall be constructed or storage of material made that does not meet the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967.

2. No building or activity shall extend above a curved horizontal plane which is eight feet below the under side of said highway structures.

3. No building or activity shall be permitted within five feet of the supporting bents of said highway structures in the exclusive easement area.

4. There shall be no interference with any of the other necessary related facilities of the State Highway Commission, as located within the exclusive easement area.

5. There shall be no rights of access of any nature between the roadways of the highway structures constructed on the exclusive easement area and Railroad's property adjacent thereto.

The State will build a new yardman's locker building and pay the costs of moving the club house, both of which are located in the exclusive easement area. State will pay the cost of relocating any tracks, signals or other track facilities necessitated by said construction.

We are not prepared at this time to offer a definite figure for the taking, but it will include the value of the easement taken and the present market value of the national car loading building.

The conveyance of the hereinabove described easements must be free and clear of all taxes, liens and encumbrances, including the proportionate part of the taxes, for the fiscal year during which the state takes possession of or receives title to said easements, whichever is the earlier.

It is my hope that you have sufficient information now at hand, with the exception of the amount to be paid, that we may meet in the near future and discuss the matter fully and by that time I believe we will have a definite figure to offer for the land and building taken.

We would like to meet with you next week and discuss this matter. If this is possible, please advise a time and place.

I also enclose 3 copies of a map showing the areas involved and the position of the structure piers. The piers colored red are on railroad property and the piers colored blue are on private property or in city streets.

Very truly yours,

FORREST COOPER
State Highway Engineer

By
F. B. KLABOE
Asst. State Highway Engineer

cc: Forrest Cooper
R. L. Porter
G. E. Rohde
F. D. Morgan
D. H. Moehring
T. W. Litchfield
A. E. Johnson

SON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 24, 1967

SUBJECT: R-36087
Union Pacific Railroad Co.
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway
Multnomah County

Mr. [illegible]
Right of Way Supervisor
State Highway Department
5821 N. E. Glisan Street
Portland, Oregon 97213

Please have the two appraisals on this file revised as soon as possible, with the following instructions going to the appraisers:

1. The existing descriptions are still in effect.

2. The piers on railroad property will be located as shown on the attached map and colored in red; there are 6 piers on railroad property. The area that will be occupied by the piers and which the railroad cannot use at all is 2950 square feet for the 6 piers and restricted area around piers, as the footings will be below ground level.

3. The State will be acquiring over the described area a perpetual and exclusive easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary related facilities over, upon and across the land covered by the easements.

RESERVING, HOWEVER, to the Railroad the following described rights in said perpetual and exclusive easement area:

1. New buildings of fireproof construction, as provided by the building code of the City of Portland, may be constructed within the exclusive easement area if the proposed construction meets the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967, and the plans have been furnished and notification is made to the State Highway Commission.

2. Railway tracks may be constructed, operated, maintained and reconstructed within the exclusive easement area in accordance with Oregon Public Utility Commissioner's regulations. The State Highway Commission shall be notified of the location of railway tracks

constructed hereafter within the exclusive easement area. Railway tracks as relocated pursuant to an agreement between Railroad and the State Highway Commission and existing tracks not needing relocation may be operated, maintained and reconstructed.

3. Vehicular and pedestrian roadways and parking areas for motor vehicles may be constructed, used and maintained within the exclusive easement area.

4. Overhead and underground electric, telephone and telegraph circuits, water, oil, gas, steam, air, sewer and drainage lines and other such facilities required in your operations, as they are presently located or as they are relocated pursuant to an agreement in order to conform with the construction of the highway structures, may be operated, maintained, altered and reconstructed by Railroad within the exclusive easement area and additional such facilities may be constructed, operated, maintained and reconstructed within said exclusive easement area; provided that all applicable state and federal safety regulations are complied with. The State Highway Commission shall be notified of the location of the additional facilities.

5. Commodities of such kinds and in such quantities as are allowed pursuant to Interstate Commerce Commission regulations may be handled in Railroad's normal operations. There shall be no storage of inflammable, volatile or explosive substances within the exclusive easement area.

6. Passage may be had across the exclusive easement area at ground level to serve Railroad's property on each side of the exclusive easement area and such other use, when in Railroad's normal operations may be made of the exclusive easement area which is not inconsistent herewith.

In exercising the above reserved rights and in conducting operations on the exclusive easement, Railroad, its successors, legal representatives and assigns, shall comply with the following restrictions:

1. No buildings shall be constructed or storage of material made that does not meet the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967.

2. No building or activity shall extend above a curved horizontal plane which is eight feet below the

the under side of said highway structures.

3. No building or activity shall be permitted within five feet of the supporting bents of said highway structures in the exclusive easement area.

4. There shall be no interference with any of the other necessary related facilities of the State Highway Commission, as located within the exclusive easement area.

5. There shall be no rights of access of any nature between the roadways of the highway structures constructed on the exclusive easement area and Railroad's property adjacent thereto.

The State will build a new yardman's locker building and pay the costs of moving the club house, both of which are located in the exclusive easement area. State will pay the cost of relocating any tracks, signals or other track facilities necessitated by said construction, so these items should not be in appraised revision.

There will be no larger tract used in the appraisals.

Copies of Policy and Procedure Memorandum No. 80-5 are attached and pages 9 and 10 of the Policy and Procedure Memorandum and pages 1-3 of Attachment 3, even though drafted to cover future use of air space where fee title has been obtained generally, apply to this situation.

The appraisers are to assume the floor of the existing building occupied by National Carloading that is not occupied by piers or within the restricted area (5' out from all sides of piers) will be left for use by National Carloading as an open platform storage area.

The appraisers should provide a value figure for the National Carloading Building in its entirety, and also with the open storage dock area being left for their use.

JLS:rh
Encls.

JACK L. SOLLIS
Staff Attorney

cc: Mr. F. B. Klaboe
Mr. G. E. Rohde
Mr. Frank C. McKinney
Mr. Theodore W. Litchfield

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JUL 24 1967
STATE HIGHWAY ENGINEER

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SEP 16 1969
FOR FILING

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OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 14, 1967

SUBJECT: File 36087
Union Pacific Railroad Co.
Fremont-Sunset Interchange
Stadium Freeway
Multnomah County

To: Mr. F. B. Klaboe
Asst. State Highway Engineer

Building

On Monday, June 12, a meeting was held in my office with Mr. Kolberg, Mr. Draper, Mr. Castricano and Mr. Mead concerning the appraisals on the above file.

NOTED
R. L. PORTER

The appraisals will have to be revised and we will have to send letters of instruction to the appraisers. However, before we can send the new instructions we will have to know how many square feet of the easement area will be totally occupied by the pier footings and unusable, and for which we will have to pay full value, and how much of the taking will be usable by the Union Pacific Railroad Company for storage, parking and buildings. I have been informed by the bridge division that this information will not be available until after a meeting with the consultant engineers next week.

In addition, we will instruct the appraisers to take the value of the yardmens' locker building and the club house out of their appraisals, as they will be handled as operating property.

We are also getting new estimates on the present replacement costs new on both of the above buildings and the national car loading building.

F. B. KLABOE
NOTED

I feel we should write to Mr. Diffenderfer and ask him if by letting the Railroad build and store material under the structure, in addition to parking, it will eliminate the damages to the remaining yard due to loss of flexibility in future development, as set out on pages 74 and 75 of his report.

REFERRED TO
R. Porter
BY ASST. STATE HWY. ENGR.

Also attached is an estimate for doing work around national car loading in case the Court holds it to be operating property.

If you need any additional information please let me know.

Jack L. Sollis

JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:ja
Attachment

cc: G. E. Rohde
Frank C. McKinney
T. W. Litchfield

RECEIVED
JUN 15 1967
OFFICE OF
STATE HIGHWAY ENGINEER

Form E-40—30M

OREGON STATE HIGHWAY DEPARTMENT

TABULATION SHEET

SHEET ..... OF ..... SHEETS

E. Fremont Interchange
Stadium Freeway Section
Relocation of National Carloading Warehouse

June 7-67
Dibaa Design
R.M. - I.S.

	Item		Unit	Quan	Allow	Total	Unit Pric	Amount
General	Excavation		Cu yd	14008	1402	15,410	1.00	15,410
Conc	Paving		Sq Yd	2,521	252	2,773	6.00	16,638
Untreated	Course Base		Ton	368	37	405	2.50	1,013
Top Course	Base		Ton	48	5	53	3.00	159
Class	½ A/C		Ton	86	9	95	12.00	1140
Demolition			Sq ft	7639	764	8403	0.50	4202
12" Water	line		Lin ft	490	49	539	12.00	6468
Drainage	Excavation		Cu yd	370	37	407	3.00	1221
12" Conc	Pipe	Storm	Lin ft	400	40	440	3.00	1320
6" Perforated	Pipe		Lin ft	400	40	440	2.25	990
Conc	Inlets	CB	Only	3	1	4	125.00	500
							Sub total	49061
						40 %	E&C	19639
							"	68700
	Const	retaining wall						
	Con	piling					"	144,000
					Total		"	212,700

This estimate includes these items only

(1) Grading, drainage & earthworks

(2) Paving of roadways & loading area

(3) Re-location of utilities (Quarter line)

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I-405-8(4)304
7296

VERNMENT

dum Parker Mathias

Cooper, State Highway Engineer
n

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

477 Cottage Street NE.
Salem, Oregon 97301

DATE: April 18, 1967

In reply refer to: 08-35.7

By: C. J. Mathias
Division Right of Way Officer

FROM: A. W. Parsons, Division Engineer
Salem, Oregon

Interstate Br Sec

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
Parcel 36087, Union Pacific Railroad

It is our understanding that you are awaiting a consultant's study concerning the Union Pacific Railroad property before proceeding with right of way negotiations. Your latest review appraisal dated March 16, 1967, covering the acquisition of six parcels is $257,000 based upon fee appraiser Elmer F. Kolberg's appraisal report of March 7, 1967.

Our preliminary review indicates several areas of the appraisals that should be further explored before any offer is made to the property owner:

1. Mr. Kolberg's appraisal does not include any allowance for kitchen equipment in the clubhouse and lockers, plus counters, in the trainmen's quarters. An analysis should be made and a legal opinion obtained as to whether or not this equipment constitutes real or personal property. This comment involves parcel no. 1.

2. Concerning parcel no. 5, Mr. Kolberg's depreciated replacement cost of the National Carloading warehouse is $96,000. In his original appraisal the depreciated replacement cost was $86,500. This raise was made without any explanation.

The original appraisal included spur track (270 lineal feet) at $2,160 but this was omitted in the revised appraisal without explanation.

NOTED
F. B. KLAGGE

3. The original appraisal set forth a land value of $1 per square foot based upon a fee taking and assuming access would be permitted across the right of way in areas unrestricted by bridge columns. The revised appraisal is at $1 per square foot, but it is based upon a new assumption that the property owner can use the area under the structures for (a) access to/from with cars, trucks, rail, and (b) parking for vehicles and rail cars. This appraisal

(more)

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Morgan
Satisfied
Made a...
Yelling
4-25-67

allows full fee value for the taking. Inasmuch as the property will retain parking rights under the structures it would seem that less than full fee value should be allowed for the taking. Further analysis is required.

4. We also noted a number of other minor changes and discrepancies in the revised appraisals which do not materially affect the final value estimate. However, we will be happy to go over them with your Review Section in order that all questionable items be resolved prior to the start of negotiations.

We also wish to bring to your attention our letter of February 23, 1967 concerning the consultant's agreements to the east and west approaches to the Fremont Bridge. Prior to our approval of any preliminary bridge design we should be furnished the James W. Diffenderfer report covering the railroad facilities. This report could affect the appraisal assumptions upon which the present review appraisal is based. We urge your early attention to securing the Diffenderfer report.

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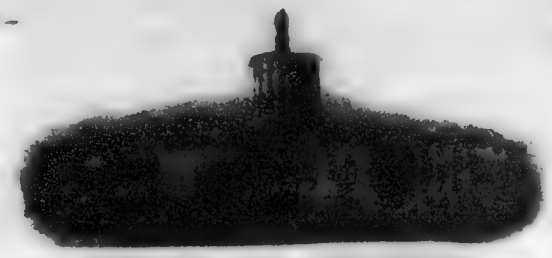
APR 21 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAR 28 1967
FOR FILING

GLENN L. JACKSON, Chairman
KENNETH H. FRIESLEY, Member
DAVID B. SIMPSON, Member
FLOYD QUIST, Secretary

I-405-E(27)304
7278



STATE OF OREGON
STATE HIGHWAY DEPARTMENT
5821 N. E. Glisan Street
Portland, Oregon 97213

ROBERT COZIER
State Highway Engineer
R.L. PORTER
Deputy State Hwy. Engr.
LEONARD I. LINDAS
Chief Counsel

January 25, 1967

Mr. Norman R. Drulard, P.E.
City Engineer
City of Portland
City Hall
Portland, Oregon 97204

NOTED
F.B. KLABOE

Dear Mr. Drulard:

Recently you called concerning the alignment shown on the plans for the East Fremont Interchange which were furnished the City with a letter to Commissioner Bowes under date of January 6, 1967. You requested that we guarantee to you the alignment, or geometrics, of this interchange before you could initiate work on the first phase of the Kerby Yard Building.

At the present time, because of a difference of opinion on the width of ramps being designed, we have not presented the plan to the Bureau of Public Roads for their approval. Final approval will probably be resolved eventually in the Bureau's Washington office, and the result may have some minor effect on the geometrics involved.

We are also negotiating at the present time for an agreement with the Union Pacific Railroad Company concerning the location through their property. We do not expect any changed as a result of these negotiations.

NOTED
F.B. KLABOE

Under the circumstances, our Salem office has advised that we cannot guarantee to the City that there will not be minor changes to the alignment of the interchange. It is not expected that any changes will have any effect whatsoever on the first phase of the City's rebuilding plan. It is estimated that it will be at least two months before we will be in a position to guarantee to the City that our design is fixed.

Very truly yours,

Original Signed By A. E. Johnson

A. E. Johnson
Metropolitan Engineer

RECEIVED
JAN 26 1967
STATE HIGHWAY ENGINEER

AEJ:sh
cc Commissioner William A. Bowes bc F. B. Klaboe

RECEIVED
JAN 20 1967

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7278

Salem, Oregon 97310
January 20, 1967

East Fremont Interchange

Mr. A. E. Johnson
Metropolitan Engineer
Portland, Oregon

Reference is made to your telephone call of a few days ago concerning the City's request that we guarantee the geometrics of this interchange. As I advised you at that time, we still have not presented the plan to the Bureau of Public Roads for their approval. The reason that this has not yet been accomplished is a difference of opinion on the width of the ramps being designed. This difference of opinion will eventually be resolved one way or the other in the Bureau's Washington office which may have some minor effect on the geometrics involved.

We have also not been able to arrive at an agreement with the Union Pacific Railroad Company concerning the location through their property. As of now, I do not know what direction these negotiations will take but I do not foresee that there will be any line changes as the result of them. Under the circumstances, I cannot guarantee to the City that there will not be minor changes to the interchange. I do not expect any changes which will have any effect whatsoever on the first phase of the City's rebuilding plan.

I would estimate that it will be at least two months before we will be in any position to guarantee to the City that our design is fixed. Please communicate these thoughts to the City.

F. B. Klaboe
Assistant State Highway Engineer

FBK:erb

cc: F. D. Morgan

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FOR FILING

I-4(2)-8(2)-204
7215

January 6, 1967

e Honorable William A. Bowes
missioner of Public Works
ty of Portland
City Hall
Portland, Oregon

1251.

Dear Commissioner Bowes:

Re: East Fremont Interchange, City of Portland

Your letter of December 9 requested copies of the final approved plans for the east approaches to the Fremont Bridge, particularly as they will affect the design of the new buildings and parking areas proposed by the City of Portland.

As discussed at the December 16, 1966, meeting in Mr. Cooper's office between representatives of the City, the architect and State Highway Department personnel, the plans are not final and have not received formal approval by the Bureau of Public Roads. They are believed to be sufficiently accurate for the City to enter the first phase of work on the Kerby Yard building since the interchange plan would affect only the adjacent parking lot layout.

We note that the architect's proposed site plan of the Kerby Yard, which was supplied to us, indicates the proposed driveway area along the north end of the Kerby Yard to be practically coincidental with the edge of the freeway ramp. This is presumably an oversight and will be corrected on the final plans, leaving room for fill slopes and some type of screen.

Enclosed are two sets of our preliminary interchange layout sheets that cover this area. As stated, these are not final and are still subject to change; however, we believe that any change will be minor and would not affect your first phase plans. More detailed information has been supplied to your people by our Metropolitan Engineer.

If further information is needed at this time, please advise.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe

cc: Forrest Cooper
R. L. Porter
Victor D. Wolfe
F. D. Morgan
A. E. Johnson

ADO:jr srb

WILLIAM A. BOWES
COMMISSIONER
DEPARTMENT OF PUBLIC WORKS

G. J. LINDSTEDT
CHIEF OF OPERATIONS
NORMAN R. DRULARD, P. E.
CITY ENGINEER

-1535

DEC 12 66

REFERRED TO
Klose
BY DEPUTY STATE HIGHWAY ENGINEER
Lands please

CITY OF PORTLAND
OREGON

December 9, 1966

Mr. Forrest Cooper,
State Highway Engineer
Oregon State Highway Department
Salem, Oregon

Dear Mr. Cooper:

The firm of Schmeer & Harrington, architects for the first phase of the remodeling of the Stanton Street Yards for the City of Portland, have requested that the City obtain from the State Highway Department copies of the final approved plans for the east approaches to the Fremont Bridge for the area, which will affect the design of the new buildings and parking areas. These highway plans should be accompanied by a letter stating that the plans have the approval of the Bureau of Public Roads and that the City may proceed with the letting of contracts for the new construction.

Since it is essential that this work be started at an early date so that the City will be able to vacate the portions of the right-of-way which the State must use for the construction of the bridge approaches, your early attention to this matter will be appreciated.

Yours very truly,

Wm. A. Bowes
Commissioner of Public Works

WAB:FTF:DL

cc: C. J. Wendt
N. R. Drulard

Routing
Morgan
Dasker
Bond
Barbee
Walker
Clark
Swan
Pease
Moreland

RECEIVED
DEC 1 - 1966
CONSTRUCTION
DIVISION

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DEC 12 1966
OFFICE OF
STATE HIGHWAY ENGINEER

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FOR FILING

I-405-8(4)303
7216

OREGON DIVISION

& Fremont Land

ION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

NOTED R. L. C.

3525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

AUGUST 17, 1966

File Ref. D 9010 - 32 - 17

Routing

Morgan	Peters
Decker	Morelock
Bond	Trout
Barbee	Scott
Walker	Wills
Glenn	Litchfield
Swan	Olson

RECEIVED
AUG 22 1966
CONSTRUCTION DIVISION

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Easement for Highway Structure,
R/W Files 36087 and 37127
East Fremont Interchange Section - Stadium Freeway
Multnomah County
Project No. I-405-8(4)303

Reference is made to your letter of June 20 concerning need to relocate and modify Railroad buildings and provide for future facilities in connection with the State's proposed construction of Fremont Bridge and E. Fremont Interchange in Portland under the above-named project.

In reviewing your letter it appears to us that the State has overstressed the matter of providing temporary safeguards during construction particularly since the installation of adequate shelters would, in itself, be hazardous to Railroad personnel and other people utilizing and working in the areas underneath and would interfere with operation of Railroad and its tenants, thus creating many problems in this respect. Furthermore, it is unthinkable that, during construction of the Bridge, the Railroad could carry on an operation underneath such as we have now in our Yardmen's Locker & Toilet Building where at times some 300 Trainmen use the facility in a day.

For those reasons and as pointed out to you in my May 3 letter, the proposal to either perform your steel erection on weekends or during other so-called nonworking periods or to provide temporary protection over our National Carloading Building is not acceptable and the building must

be relocated as indicated previously. Furthermore, do not feel that the State is providing for minimum interference when it proposes to attempt its pier construction within confines of the Carloading Building.

There are, in fact, many hazards other than those defined as structural which can and do occur long after construction is complete. For example, the possibility of accidents on overhead highway structures involving trucks carrying inflammable materials which could spill over the sides offers a real hazard to any buildings underneath or nearby and their occupants.

Although the Railroad has indicated it desires to retain the right to rebuild within the easement areas, we certainly do not anticipate rebuilding with any structures such as the wood frame buildings now occupying these areas.

While the bridge is being constructed the State, of course, can relieve itself of responsibility by requiring its Contractor to furnish so-called safeguards and insurance. On the other hand, the Railroad after construction would have to look to each individual case for responsibility where damage occurs to the railroad except from the overhead structure itself. Since the proposed Fremont Bridge structure will be double-decked and extremely high, carrying very fast vehicular traffic, likelihood of the Railroad being so involved in a number of instances is certainly not remote.

With respect to considering the Carloading Building as Railroad operating property, as you know, a similar situation was dealt with in connection with the E. Marquam Bridge Interchange construction over Portland Traction Company's property and accordingly we do not consider the Bureau of Public Roads' regulations referred to in your letter, applicable. This Railroad Company is very well familiar with the limitations which the Highway Department would impose from the E. Marquam Bridge Interchange negotiations and, consequently, as you know, an easement agreement has not been consummated incorporating those restrictions.

As a matter of information, removal of the Railroad's spur track to the Linde Air Products Co. is covered in our industry contract with Linde, which provides for removal of the track beyond clearance point by the Railroad who shall pay to the Industry salvage value for the usable material between the clearance point and Linde's property line less cost of removal. This takes in that portion of the track occupying the city streets. However, inasmuch as the State's construction renders the spur track completely useless and the Railroad would not be served by retaining any portion thereof, the State should pay for removal of the remainder.

You were informed in the opening paragraph of this letter that construction of the Fremont Bridge or installing protective shelters over the Railroad's Yardmen's Locker & Toilet Building is out of the question since our employees use the building on a 24-hour, 7-days-a-week basis. Accordingly, the State should make plans for relocation of this facility in line with previous correspondence and discussions.

After considering the foregoing, will you please advise the State's willingness to proceed along the lines discussed in my letters of October 5, 1964 and April 14, 1966.

Yours very truly,

W. A. Johnson

COPIES TO:
A.W. PARSONS
R.L. PORTER
F.B. KEARSE
TOM EDWARDS

FOR INFORMATION ONLY — NO REPLY WILL BE MADE UNTIL MR DIFFENDERFER'S REPORT IS COMPLETE.

10-12-66
E

State Commerce Commission. Therefore, the provisions to restore railroad facilities as provided in PPM 30-6 would not apply in any event, and the disposition of this building would be handled as set forth in PPM 21-4.1 and 21-4.4, copies of which are attached, as any other right of way acquisition.

You also indicate that the purchase of this structure would impose limitations inconsistent with the continued use of the structure of operations as now being conducted in the affected buildings. As requested in our letter of April 29, 1966, we will need a complete explanation of your proposed use of the area beneath the structure so that we may make a proper presentation to the Bureau of Public Roads.

In reviewing our negotiations with the Linde Air Products Company we find that the track occupying that property has been acquired by the State as part of the right of way negotiation. Therefore, the removal will be handled under a demolition contract or included as a portion of the State's contract with the track materials being assigned to the successful bidder. The railroad will be reimbursed for the removal of that track conflicting with the footing construction. That portion of the track occupying the city streets should be removed at railroad expense, upon request of the City, as per Ordinance No. 56866.

The precautions we propose for the National Carloading Warehouse could be also applied to the Yardmen's locker and toilet building located on North Russell Street; that is, the roof would be protected by some temporary cover and the beams would be erected at such time as the building is either not occupied or when its occupancy is at an absolute minimum.

This information, coupled with that supplied to you with our letter of April 29, 1966, provides you with the State's view as to the terms contained in your letter of October 5, 1964. We urge that you give these thoughts serious consideration and provide us with an early reply so that we may proceed with our negotiations.

Very truly yours,

F. D. Morgan
Construction Engineer

By T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm:fp

bc A. W. Parsons
R. L. Porter
F. B. Klaboe
Ivan Merchant
L. H. Young
D. H. Moehring
G. E. Rohde
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

June 22, 1966

Union Pacific Railroad Company
2525 North Kerrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Gentlemen:

RE: Easement for Highway Structure
R/W Files 36037 and 37127
East Fremont Interchange Section
Stadium Freeway - Multnomah County
Project No. I-405-8(4)303
YOUR FILE: D 9010 - 32 - 17

This is in reply to your letter of May 3, 1966 in which you undertook the need to relocate all your cable buildings which will lie beneath our proposed East Fremont Interchange structures.

You point out that as a matter of safety you do not wish to have your employees or your tenants work in buildings under the highway structures during construction. I should like to point out that recently we have successfully completed erection of the steel girders for the East Marquam Interchange structures over the Portland General Electric building. This is a double-deck structure similar to that which will be constructed over your property. In order to minimize the danger to either your or your tenants' employees, we can specify that this work will be done on weekends or during other non-work periods. We can also specify that the contractor will construct temporary protection over the roof of the National Carloading Building to eliminate potential damage from objects dropped from the structure during construction.

We must also arrange for the construction of the pier which will lie within the easterly wall of the National Carloading Warehouse. In order to construct this pier, we must isolate a portion of this building and must have available a portion of the existing parking area for a pile-driving rig. During the progress of this work it will be necessary for the railroad and the State to coordinate our mutual operations so that each party may carry on its operation with minimum interference with the other. We will include in the contract provisions for our contractor to restore the National Carloading Warehouse to its original condition after the pillar is constructed.

Although not affecting our offer, the discussion in your letter concerning the National Carloading Building indicates that this facility is non-operating property. Warehouses leased to others are not considered to be operating facilities by the Inter-

GON. STATE
HWAY DEPARTMENT

/AY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

Pu X 667

March 6, 1969

Mr. L. James Bergmann
General Attorney
Union Pacific Railroad Company
727 Pittock Block
Portland, Oregon

Re: Your file 9001-32-14-A
7370
Our file R-36087
Union Pacific Railroad
Fremont Bridge Section
Stadium Freeway

Dear Mr. Bergmann:

Attached please find a Permit of Entry from the Union Pacific Railroad to the State Highway Commission. Unless this Permit of Entry in its present form without amendment is signed and returned within ten (10) days of the date of this letter, it will be necessary for us to proceed with federal condemnation of easement over the six parcels of land referred to in the Permit of Entry.

The resort to federal condemnation is necessitated by the time schedule for the construction of the East Fremont Interchange of which I am sure you are well aware.

Very truly yours,

G. E. ROHDE
Chief Counsel

By Jack L. Sollis
JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:krk

Enc.

RECEIVED
MAR 7 1969
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

March 6, 1969

State Highway Commission
State Highway Building
Salem, Oregon 97310

Re: Permit of Entry
Union Pacific Railroad
File R-36087
Fremont Bridge Section
Stadium Freeway

Gentlemen:

In order to permit the Highway Commission to proceed with the construction of the Fremont Bridge Section of the Stadium Freeway in Multnomah County, the Oregon-Washington Railroad & Navigation Company and the Union Pacific Railroad Company, hereinafter called Railroad, does hereby grant the Commission, its agents or contractors the right to enter for the purpose of constructing the East Fremont Interchange the six parcels of land owned by Railroad and described in Exhibit "A" attached hereto and by this reference made a part hereof, on the following forms and conditions and at the following times:

1. That the Highway Commission will move the clubhouse located on Parcel 2 to a location to be selected by the Railroad. The Highway Commission may have possession of said building upon the execution of this Permit of Entry;

2. That the Highway Commission will reimburse the Railroad for the cost of constructing a new yardmen's locker building to replace the one now located on said Parcel 1 less the amount of betterment as set up in PPM 30-3 which is at this time estimated to be $12,000. The Highway Commission may have possession of this parcel on June 1, 1969, for the purpose of demolishing said building and selecting said section of highway;

3. The Highway Commission may have possession of Parcels 3, 4, 5, 6 on June 1, 1969, for the purposes of demolishing the building located on Parcel 5 and the construction of the above section of highway;

4. The Highway Commission will not unduly interfere with the Railroad's operation of its Albina yard tracks. The construction work on said parcels or that are in close proximity to Railroad property shall be done in a workmanlike manner;

5. In the event the Highway Commission and the Railroad can not agree on the amount of just compensation to be paid for an easement over said six parcels of land and the improvements located thereon exclusive of the yardmen's locker building and the clubhouse, the Highway Commission may file a condemnation action in the Circuit Court of Multnomah County to determine the amount of just compensation. The Railroad will not contest the necessity of condemnation nor the jurisdiction of the Circuit Court to try the case.

OREGON-WASHINGTON RAILROAD &
NAVIGATION COMPANY
and
UNION PACIFIC RAILROAD

By

_____

_____

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Porter

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 3, 1966

TO: Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

SUBJECT: (Assignment: FBK-711)
UPRR letter dated May 3, 1966
E. Fremont Interchange Section
Stadium Freeway
Multnomah County

The subject letter was discussed with the Bureau of Public Roads and Right of Way people on May 13, 1966, as related in John Oakes' Memo to the Files of that date, a copy of which is hereto attached. We have drafted a letter which has now been reviewed by Messrs. Barbee, Merchant, Moehring and Dec and could be put in final form at any time.

However, after some discussions on May 31 with Mr. Porter and Mr. Moehring, there is some question in my mind as to precisely the information we should include in this letter, since we may decide to hire this expert employed by the Pennsylvania Railroad to review this situation in the same manner as he reviewed the E. Marquam Interchange situation.

The situation at 5:00 o"clock on May 31, 1966 was that Mr. Porter was going to meet with Mr. Rohde and Mr. McKinney and discuss our proposed action in the case. It is my thinking that we will probably proceed with an application to the Public Utility Commissioner for both the East and West Interchanges. As you know, the placing of a pier at the West end of the bridge will be adjacent to the Spokane, Portland & Seattle Railway Company's tracks near 14th and Thurman. Over a year ago Mr. Moy of the SP&S expressed his disapproval of this particular design and it is my belief that we will have some difficulty in negotiating with the SP&S on this project. Therefore, I feel we should proceed with our application to the PUC at an early date for both the Interchange areas. The orders drawn by the PUC should carry significant weight in our further dealings with all railroads involved in this project.

Until we have decided on a positive course of action; that is, whether to hire this expert from the Pennsylvania Railroad or what other preliminary steps to take, we should not send the letter I have drafted to the Union Pacific Railroad. As soon as a decision is made I will revise the draft accordingly and it will go out immediately.

F. D. Morgan
Construction Engineer

By T. W. Litchfield
T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

Litchfield

FORM E-80 3011 10-65 SP*23401-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 13, 1966

To: MEMORANDUM TO THE FILE

SUBJECT: File Nos. 36087 & 37127
Union Pacific Railroad
Fremont Interchange-
Marquam Bridge Section
Stadium Freeway
Multnomah County

I attended a meeting in Mr. Barbee's office today at which the following people were present: Ted Dec, Engineering Coordinator; C. J. Mathias, Division Right of Way Officer; G. R. Brooks, District Engineer "A"; and H. A. Schell, Jr., Area Engineer "A"-4 of the Bureau of Public Roads and I. D. Merchant, Bridge Engineer; T. W. Litchfield, Utilities Liaison Engineer; Jack Hesla, Field Utilities Liaison Engineer of the State Highway Department. This meeting was to determine the basis for our negotiation with the Union Pacific on the above files.

Mr. Dec opened the meeting by stating that this was a file that should be handled under PPM 21-41 instead of PPM 30-4, as there was no operating property involved. Linde Air Products has been bought by the State and the spur track serving the company is no longer needed. He suggested that a copy of PPM 21-41 be sent to the Union Pacific Company with the letter Mr. Litchfield is to write outlining the basis for negotiation.

There was general discussion in regard to the possible interruption of work at the warehouse the National Car Loading Company leases from the railroad. Two major possibilities for work interruption apparently exists at this place.

The first possibility involves possible danger from overhead construction during the erection of the bridge. Mr. Merchant believes that one weekend should see the girders in place and that probably this would not constitute an interruption. The danger from falling debris would be minimized by a protective covering of plywood over the building.

Routing

Morgan
Docker
Bond
Barbee
Walker
Glenn
Swan

Rasor
Morelock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
MAY 17 1966
CONSTRUCTION
DIVISION

The second interruption would be the necessity to drive piles for the piers in an area that is presently used for trucking. This could be minimized by the National Car Loading Company by intelligent scheduling and storage within the available area. This particular construction also involves the use of part of the building and necessitates destruction of some of the present wall and rebuilding of the building around the pier. It was pointed out by Mr. Mathias that our appraisal does not make any allowance for this reconstruction; consequently, the present offer will be the appraisal amount and the promise that this reconstruction will be done by the contractor.

Mr. Litchfield is to write a letter on the basis of this discussion and the former offers that have been made to the railroad company. If the railroad company refuses to settle on this basis, we are to send them a letter of offer based on an air right easement over the railroad land under the structure and the purchase and razing of the three buildings that are either under the structure or partially under the structure; to be followed in as short a time as possible by a complaint on the same basis. Mr. Litchfield asked me to check if the agreement between Linde Air Products and the Union Pacific Company gave ownership of the trackage on the spur leading to their building to Linde Air Products.

After the meeting, Mr. Mathias requested that the review appraisal on File No. 36087 be corrected on the following points:

1. He stated there are small mathematical errors within the body of the appraisal.

2. The depreciated value of the clubhouse includes the value of the land.

3. The cost to move the clubhouse exceeds the depreciated value and we would need justification to go to the larger figure.

4. Include cost of rebuilding after pier constructed.

John R. Oakes

JOHN R. OAKES
Assistant Right of Way Engineer

JRO:JP

cc: Ted Dec
C. J. Mathias
G. R. Brooks
H. A. Schell
I. D. Merchant
T. W. Litchfield
Jack Hesla
A. Riveness
Carl Smith
J. J. Smith

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E-405-8(32) 304
7298

Salem, Oregon 97310
May 4, 1966

East Fremont Interchange

Mr. F. B. Morgan
Construction Engineer
B U I L D I N G

Attention Mr. D. J. Barbee

I enclose a copy of some handwritten estimates given to me by the City at our meeting to discuss the re-establishment of their public works yards.

This information may be of some value to you in determining the scope of their plans and the areas that they would desire beneath the structure.

F. B. Klaboe
Assistant State Highway Engineer

FBK:erb

Phase I

Before Morris Yard is taken by State

A.	Purchase remainder of Blk 13 Prudential Addn. and Block 13 Riverview Addition and Block A Dominways Subdivision	67,600 ok
B.	Demolish buildings on above parcels	6,800
C.	Develope Albina Yard Building	164,745
D.	Develope East Parking Lot	25,515
E.	Build First Floor of Kerby Bldg	427,810
F.	Landscape Albina Yard Annex	410
		$692,880
G	Covered Vehicle Storage	139,020
	Total Phase I	$831,900

Phase II

H. Build 2nd Floor + Yard of Kerby Bldg 887,175

Phase III

I. Build North Portion of Kerby 3rd Floor

Building	$443,932—	
Parking Lot	9,435—	
		$453,367

Phase IV

J. Build South Portion of Kerby 3rd Floor, Yard and West Parking Lot

Kerby Building	930,418	
Kerby Yard (3rd Floor)	32,235	
West Parking Lot	35,505	
		$998,158

Phase V

Build Stanton Shop on Present Stanton Yard Block — 1,338,900

Phase VI

Build 4th Floor Kirby Bldg — 422,100

Phase VII

Landscaping — 21,655

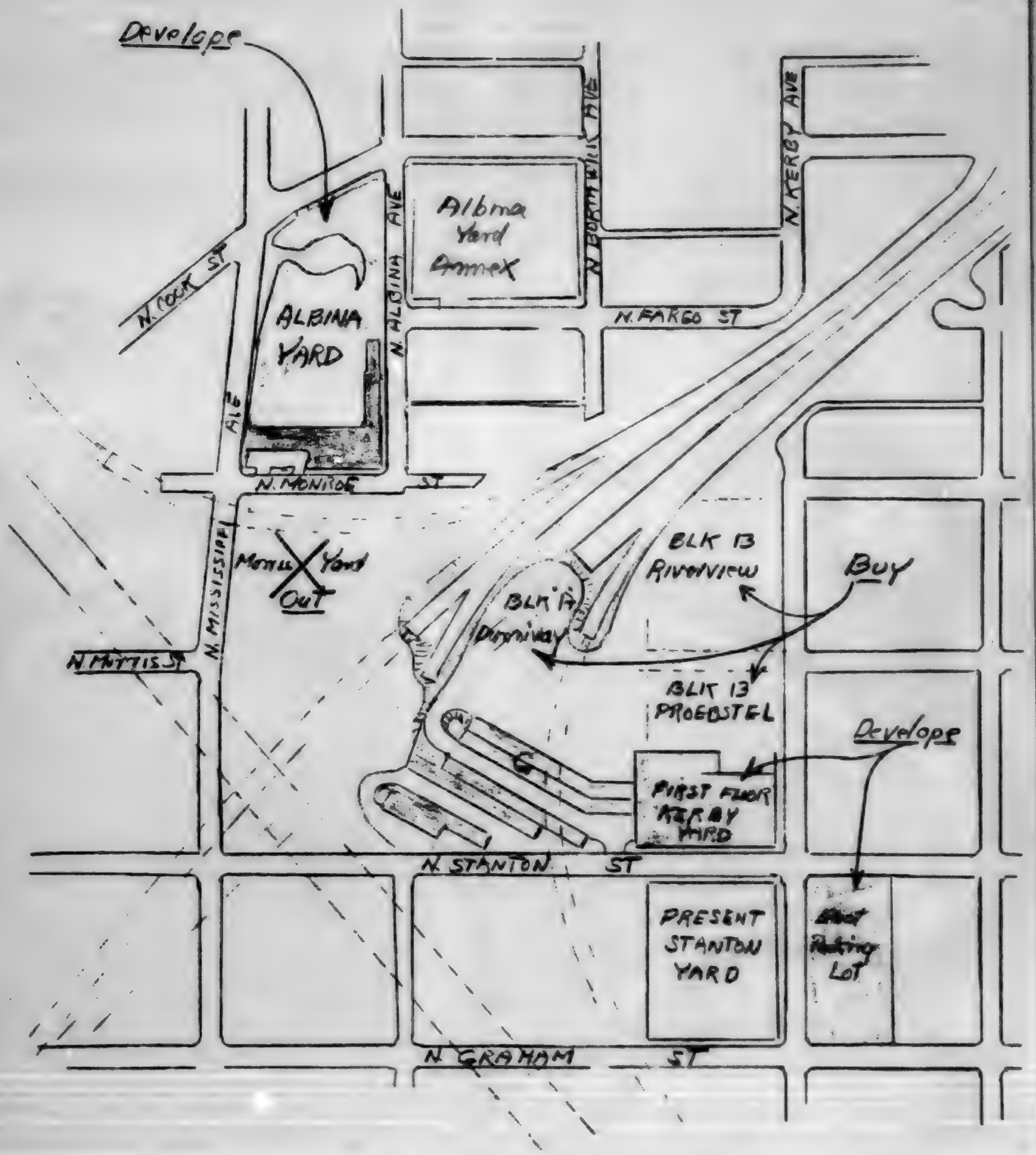
Fees - Architect, Engineering & Supervi — 291,800

$5,223,400

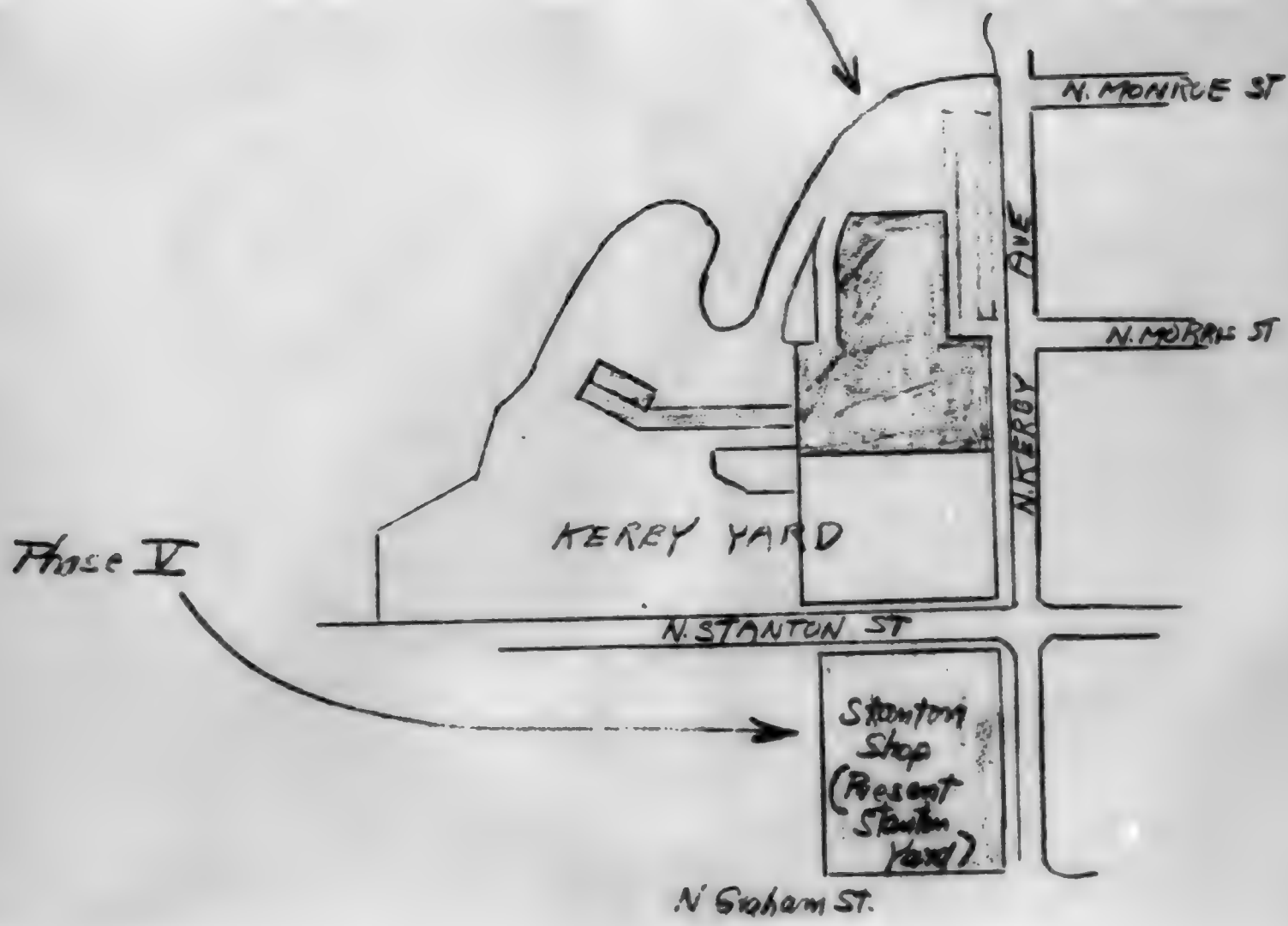
This Total can be reduced to $4,931,600 by conforming to minimum needs only

7-2-L

PHASE I $831,900



Phase II, III, IV + VI



Phase V

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FOR FILING

I-405-5(22)304
1293

I PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

NOTED
R. L. PORTER

May 3, 1966

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

File: D 9010 - 32 - 17

Mr. Forrest Cooper,
State Highway Engineer
Oregon State Highway Department
Salem, Oregon 97310

Attn: Mr. F. B. Klaboe,
Asst. State Highway Engineer

copies
REFERRED TO
BPR - Merchant - Porter
By Asst. State Hwy. Engr.
Litchfield, Barbee, Robe
Johnson, Moehring 5-4-66

Dear Sir:

Please refer to the meeting between Railroad and Highway representatives held on April 14, 1966 in Portland to discuss pending construction of the Fremont Bridge and the E. Fremont Interchange over the Willamette River and Union Pacific Railroad's Albina Yards in Portland.

In line with discussions at the meeting, I wish to reaffirm the Railroad's position that at State expense all existing Railroad buildings must be relocated outside easement areas to be granted the State for construction and maintenance of the bridge and interchange. As a matter of safety the Railroad does not wish to have employees of its own or its tenants' work in buildings under the highway structures during construction; and both our own operations and the business of our tenant, National Carloading, in the buildings located beneath the structure, are of such nature that they cannot be suspended during construction and then resumed. It would be impossible to make provision for our operations or for our tenants' business to be carried on elsewhere during construction and then moved back, except at extremely high cost.

In addition, we do not feel that the National Carloading building, if retained in its present location under the bridge, would be attractive to future tenants. As you are aware, this building is occupied by a forwarding company engaged in a business essential to Railroad operations and it is expected that similar usage of the building will be desired in the future. If it were to be left in its present location, even without considering the limitations placed upon access by the location of piers, the mere existence of the overhead structure with attendant nuisances and potential hazards would impose limitations upon the desirability and usefulness of the building inconsistent with its present use.

NOTED
F. B. KLABOE

Similarly, limitations which would be imposed by the existence of the structure would be inconsistent with continuation beneath it of the operations now being carried on by this company in the affected buildings.

On the other hand, space available to the Railroad in this area which the State has chosen to construct its overhead structures is limited and the Railroad must provide for possible expansion of its facilities in the future. Accordingly, we will insist on retaining the right to rebuild in the easement areas, such facilities and buildings as required by the Railroad in its future operations of a design suitable for locating under the structures and complying with local building and fire codes. Although we cannot now predict the uses to which such future buildings might be put, such uses would necessarily have to be consistent with the limitations imposed by existence of the overhead structure.

Will you therefore please advise if the State is agreeable to the proposals outlined in my letter of October 5, 1964 addressed to Mr. Ivan D. Merchant, Bridge Engineer.

Yours very truly,

W. D. Hagg

cc: Mr. Ivan D. Merchant,
Bridge Engineer
Oregon State Highway Department
Salem, Oregon 97310

Mr. T. W. Litchfield,
Utilities Liaison Engineer
Oregon State Highway Department
Salem, Oregon 97310

RECEIVED
MAY 4 1966

RECEIVED
MAY 4 1966
OREGON
STATE HIGHWAY COMMISSION

RECEIVED
SEP 16 1969
FOR FILING

I-L-5-1(22)304
7278

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

NOTED
F. B. KLABOE

April 29, 1966

E Fremont Intch

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: Easement for Highway Structure
R/W Files 36087 and 37127
East Fremont Interchange
Stadium Freeway
Multnomah County
YOUR FILE: D 9010 - 32 - 17

Gentlemen:

At our meeting of April 14, 1966, we discussed the terms contained in your letter of October 5, 1964 concerning this subject.

Condition (1) of your letter agreed to grant easements to the State to a line 25 feet outside the structure with certain reservations. Reservation (a) was that all railroad buildings are to be relocated outside the easement line at State's expense. Reservation (b) was that railroad will retain the right to build and occupy future buildings in the easement area in accordance with the State and local fire buildings codes, except that no building will be constructed closer to the bridge in an easement area above a plain parallel to and 8 feet below the underside of the structure.

As brought out in our meeting of April 14, we felt these requests somewhat inconsistent, but you pointed out that the type of buildings which would be reconstructed within the easement area would be of a type other than those which now occupy these areas. In order for us to make a proper presentation to the Bureau of Public Roads, we must have from you a complete explanation of your proposed use of the area beneath the structure so that it can be shown that your requests as outlined in your October 5 letter are justified.

It was also mentioned in our meeting of April 14 that you would like to see our appraisal of the damage to your property. We have had our appraisals reviewed for the air easement over your property. This appraisal includes the moving of the clubhouse, fire proofing the National Carloading and Yardmen's buildings, damages to the National Carloading Building caused by the construction of a column in its east wall, and the damages to the six parcels of land included in our Files 36087 and 37127. We are willing to recommend to the Highway

Commission that the sum of $55,885 be paid as consideration. If this is acceptable to you the disposition of the buildings will be the railroad's responsibility. In addition to the consideration above stated, the railroad will retain the right to use the area beneath the structure in any manner so long as it is consistent with our use of the property.

As agreed in our conference on April 14, the State will assist you in obtaining vacation of North Brendle, Knott and Russell Avenues and the alley lying midway between Larrabee and Brendle Avenues and extending from Knott to Russell Street.

Herewith for your use you will find four (4) prints of a portion of our right of way map 1A-16-22 which shows the right of way we intend to acquire across your property. You will also find enclosed the description of easement for our Files 36087 and 37127 for your use.

Please review the information contained herewith and our above-stated proposal for settlement and advise at your earliest convenience, since it is our desire to accelerate the negotiation for this property. It is our intention to open bids for this project in the middle of 1967.

Very truly yours,

F. D. Morgan
Construction Engineer

By

T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

cc: A. W. Parsons

R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

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SEP 16 1969
• FOR FILING

I 405-8(22)304
7278

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 22, 1966

To: MEMO TO THE FILES

SUBJECT: East Fremont Interchange
Stadium Freeway - Multnomah County

On April 14, 1966 a meeting was held in the Conference Room of the Superintendent's office of the Union Pacific Railroad in the Pittock Block to discuss the East Fremont Interchange and its effect on Union Pacific property. Representing the railroad were R. E. Haacke, District Engineer, H. B. Durrant, Division Engineer, A. V. Didier, Assistant Division Engineer, G. M. Tabor, Assistant Engineer, L. A. Fisher, General Industrial Agent, L. T. Monaco, Land and Tax Agent, J. A. Reuling, Jr., General Attorney. Representing the State were F. B. Klaboe, Assistant State Highway Engineer, A. E. Johnson, Metropolitan Engineer, Ivan D. Merchant, Bridge Engineer, D. J. Barbee, Assistant Construction Engineer, D. H. Moehring, Right of Way Engineer, T. W. Litchfield, Utilities Liaison Engineer, Jack Hesla, Field Utilities Liaison Engineer.

At this meeting we discussed the contents of the railroad's letter of October 5, 1964, in which they listed four major conditions under which they would allow the State to occupy railroad property for the proposed construction of the Fremont Bridge and the East Fremont Interchange ramps.

NOTED
F. B. KLABOE

Conditions 1 and 2 of the railroad's letter of October 5 state that all the railroad buildings are to be relocated outside the proposed easement area the State wishes to acquire, and also that the railroad will retain the right to build and occupy future buildings in the easement areas. We stated it would be somewhat inconsistent to move the buildings out and then give the railroad the right to rebuild beneath the structure. The railroad insisted that they did not like to have their buildings under the structures at all since they were afraid of pidgeon droppings and material which may be thrown from the bridge landing on top of the buildings. They also indicated that the property was now industrial and occupied by a lessee. In their opinion, if it were overbuilt by a structure the property would be less desirable to a future tenant. They pointed out that the buildings they

intended to construct beneath the structure would be buildings for operatinn of the railroad and would not be inconsistent with our use of the area.

The buildings involved are the National Carloading Warehouse, which lies at the northwest corner of the intersection of Interstate Avenue and Knott Street; the Union Pacific Club House, which lies on the west side of Larrabee Avenue between Knott and Russell Streets, and the Yardmen's locker and toilet building, which is located on the north side of Russell Street on the west side of the alley between Larrabee and Brendle Avenues.

Our approach was that all these buildings should remain in place except the Club House. The structure should be built over them and the State would compensate the railroad for its damages. This would involve building a column inside the easterly wall of the National Carloading Warehouse, fireproofing this building, moving the UP Club House, and fireproofing the Yardmen's locker and toilet building. The railroad insisted this would be unacceptable to them and that they would accept only a move such as they have detailed in their letter of October 5, 1964.

We also discussed the retaining wall (mentioned as item 2C(3) of their letter) the railroad requests us to build along Interstate Avenue for a distance of 500 feet. It is our opinion that this retaining wall is definitely a betterment. We could see no obligation to carry this retaining wall any farther to the south than the area now occupied by the National Carloading platform, since no wall exists there now and the railroad's operation proceeds satisfactorily. We did agree the State may be obligated to construct a wall northerly of this point for a distance of approximately 200 feet. The railroad brought out, however, that much of the remaining 300 feet of wall would be quite low and little more than a curb.

Item 2d of the railroad's letter of October 5, 1964 provided that the State fireproof the Republic Carloading Company, the railroad's Division Headquarters and the railroad's Maintenance of Way Office. The closest corner of any of these buildings is 33 feet from the south edge of our bridge (horizontal measurement). The farthest corner is 245 feet from the south edge of the bridge. We stated that according to the Fire Marshal it would not be necessary to fireproof any of these three buildings. The railroad brought out that they have their own set of safety rules and in their view fireproofing would be necessary. They also indicated that they want the same treatment as would be required by the State if the railroad were constructing a building after the bridge had been completed.

Item 3 of the railroad's letter requests the State to convey the property to the railroad occupied by the Linde Air Products Company and the Mecca Restaurant. The railroad would then grant the State an easement for the structure. We pointed out that we did not own all of the Linde Air Products Company property and that the triangular shaped remainder in the northwest corner of this property still was owned by Linde Air Products. Mr. Klaboe pointed out that it may be possible to convey the fee title to this right of way to the railroad, but that it would have to be cleared with the Bureau of Public Roads. The railroad feels that all property in this area should have the same fee ownership and that the State should have the same easement right throughout the entire area. It was agreed that the conveyance of this property would be reflected in the final settlement between the State and the railroad. The railroad brought out that they expect an increase in business in this area due to their trailer operation and the railroad wanted to be able to provide for this anticipated expansion. They also wanted our damage figures to compare with their assessment of this damage. Mr. Moehring had the appraisals in hand, but the figures were never divulged.

The subject of betterment was discussed. The railroad made quite a point of the fact that they had argued this many times with the Corps of Engineers and won every time. That each time any of their facilities were rebuilt because of the Corps' work their function had been restored without any credit for extended service life. They felt assured that they could provide us with adequate information to convince the Bureau of Public Roads the railroad's position is sound. It is their opinion that the function of their facilities should be restored without any credit for extended service life. We discussed moving the buildings, and it was generally assumed that this, with the exception of the UP Club House, would be unsatisfactory and probably cost more than rebuilding in a new location. It was agreed that the Union Pacific Club House building could be moved for approximately the same cost as its value.

The railroad also brought up the hazard existing from men working beneath the structure during construction. It might be brought out here that when the beams were placed over the PGE garage on the East Marquam Interchange on April 13 and 14, 1966 that our Resident Engineer, Bob Shotwell, requested that all PGE personnel be evacuated from that end of the garage building.

We promised to gather our figures together and present themto the railroad at a future date. We pointed out that it may be possible to relocate with the buildings under PPM 30-3 as operating railroad facilities. If this were done railroad indicated that they might be agreeable to letting the contract to reconstruct the buildings.

Item 3b of the railroad's letter of October 5, 1964 asks the State to assist in the vacation of certain streets in this area. It was brought out that the railroad had

originally petitioned for the vacation of these streets, and that the State had requested the City to not act on this vacation until the Fremont Bridge problems had been settled. We agreed that we would assist in the vacation of these streets, but that we must reserve access for maintenance of the bridge after its construction.

We came to no positive conclusions except that we would assemble our damage figures and present them to the railroad for their review and comparison with their own damage figures. We also indicated we would reply to the railroad's letter of October 5, 1964 and ask for clarification of their request that in addition to relocating the buildings, the State grant the railroad the right to rebuild beneath the structure.

T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

cc: R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

SU-128(6) Powder River Section 1969
(McDougal Lane) of FAS-506, N.
#7299 of Baker. (Grad. & stone base)

OVA 3788

7299

OREGON STATE HIGHWAY DEPARTMENT

FORM A-150 (3-64)

HIGHWAY DEPARTMENT INVOICE

NO. 103713

DATE	BILLING REQ. NO.	YOUR ORDER NO.	CREDIT DISTRIBUTION
[illegible]	[illegible]		Contract 7299 5 1-10 -? ? SU-128(6)

Baker County
County Court
Courthouse
Baker, Oregon 97814

RECEIVED
COUNTY & CITY SECTION
OCT 20 1970
ENGR. COOR. LE AE UE
UPE CE RE RPE

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DEPARTMENT
AND REMITTANCE TO:
OREGON STATE HIGHWAY DEPARTMENT
STATE HIGHWAY BUILDING
SALEM, OREGON 97310

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Attention: Hon. Lloyd Fea, Judge			
Final Billing: Powder River (McDou, all Lane) Section, ~~FF~~ 506. Covered by agreement dated ~~January 25, 1966.~~ 9-2-69			
County advance deposit		[illegible].00	
Amount previously transferred		17,400.00	
			5,000.00
County share of construction cost		19,5[illegible].84	
Amount previously transferred		17,4[illegible].00	
			[illegible].84
To be refunded			[illegible].16

ACKNOWLEDGMENT OF BILLING REQUEST

Cash Received with Request: $_____

By _____

RECEIVED
MAR 10 1970
FOR FILING

SLL-128(4)

7277

March 10, 1970

United Pacific Insurance Company
Fidelity and Surety Department
P. O. Box 1216
Tacoma, Washington 98401

Gentlemen:

Contract No. 7277 awarded to E. W. Eldridge, Inc., for grading and stone base on the Powder River Section of FAS 906 in Baker County was completed on November 26, 1969, and accepted by the Highway Commission on March 9, 1970.

Final payment in the amount of $4,788.93 will be released to the contractor after March 17, 1970. The total contract amount is $88,040.87 including $233.34 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Avery, Secretary
OREGON STATE HIGHWAY COMMISSION

fbm

cc E. W. Eldridge, Inc.
P. O. Box 98
Sandy, Oregon 97055

Frank Morgan
Ivan Merchant
V. E. Skoog
H. S. Coulter
Attn: John Barr

RECEIVED
MAR 9 - 1970
FOR FILING
SU-128(6)
7299

March 9, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed November 26, 1969, on Contract No. 7299. The contract was with E. W. Eldridge, Inc., and was for grading and stone base on the Powder River Section of FAS 306 in Baker County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective March 9, 1970, and that you concur in this procedure at the Commission meeting on March 17.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
Ivan Merchant
F. D. Morgan
L. H. Young
H. S. Cox
H. S. Coulter

srb sr

LLOYD REA
COUNTY JUDGE
GILL C. WRIGHT
WILBUR SMITH
COMMISSIONERS

BAKER COUNTY

BAKER • OREGON

NOTED
H. S. COX

February 16, 1970

H. S. Cox
County & City Engineer
State Highway Department
Salem, Oregon

Dear Si:

Baker County has inspected and accepted the contract on our FAS 506.

We just received the letter of acceptance on this job from the city of Baker.

Yours very truly,

Lloyd Rea

Lloyd Rea
County Judge

LR:bvl

NOTED
HAROLD REYNOLDSON

2-24-70
copy to Ed Reese (const.)

RECEIVED
FEB 17 1970
ENGINEER
COUNTY & CITY DIVISION

NOTED
P. B. Ammerman

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
DON HARWELL

RECEIVED
JAN 27 1970
FOR FILING

SU-128(6)
7299

#9

December 30, 1969

E. W. Eldridge, Inc.
P. O. Box 98
Sandy, Oregon 97055

Gentlemen:

The State Highway Commission at its meeting on December 23, 1969, considered your request for a 24-day time extension on Contract No. 7299 for grading and place base on the Powder River Section of FAS 306 in Baker County.

The Commission granted you a 19-day extension, to the date of completion, without assessment of liquidated damages.

Very truly yours,

Floyd Oberg, Secretary
OREGON STATE HIGHWAY COMMISSION

fhm
cc F. D. Morgan
V. E. Oberg
H. S. Coulter
L. V. Rinehart

FORM E-90 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
December 15, 1969

SUBJECT: Powder River Section
Contract No. 7299
Request for Time Extension

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

E. W. Eldridge, Inc. requests 24 days time extension because of delay from utility poles in the grading areas. This is a Secondary Urban project for which bids were opened August 28 with 50 calendar workdays allowed. The project was 1.18 miles in length over an existing route with scratch grading work, the main bid item being placement of stone subbase for a future oil mat. Most of the improvement videned within existing right of way, portions of which were occupied by three utilities.

The day count started September 19 and the contractor started work on September 24. Utility poles hindered the contractor's work from the beginning. This is mentioned on several of the weekly project reports. The pole relocation work was started by one of the utility companies on October 3. By October 17, about half of the grading had been accomplished with 58 percent of the contract time elapsed. Grading progress was interrupted at this time for several days because of poles yet to be moved. It was not until October 27 that the poles were completely out of conflict with 78 percent of the contract time elapsed.

The project was completed November 26 with 69 days elapsed and with 19 days liquidated damages assessed at $75 per day for $1,425. We believe the utility conflicts justify a 19-day time extension which would delete all liquidated damages.

This is a FAS project and does not require specific Bureau of Public Roads approval. Attached is a rough draft letter to the Highway Commission.

F. D. Morgan
Construction Engineer

By John A. Bond
John A. Bond
Construction Administration Engineer

RECEIVED
DEC 16 1969
OFFICE OF
STATE HIGHWAY ENGINEER

JAB:fw
Attach.
cc V. L. Gallagher

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7299 Contractor E. W. Eldridge, Inc.

Highway Powder River Section of FAS 506 in Baker County

Section

Kind of Work Grading and Stone Base

It is recommended that the request for increase in the number of workdays within which to complete said contract be ~~DENIED~~ GRANTED. The reasons for such recommendation are as follows:

Recommend 19 day extension for delay in relocating utilities.

Recommended for Approval:

Asst. Division Engineer

for Construction Engineer or Bridge Engineer

Assistant State Highway Engineer

State Printing 21000

Contract No.	7299
Project designation	SU-128(6) State-Federal
Date awarded	Sept. 5, 1969
Work started	Sept. 24, 1969
Per cent completed	80% Nov. 18, 1969 Date
No. of Workdays Allowed	50
No. of Workdays Used	61
No. of Added Workdays Requested	24

E—220 (Rev.)—634—8-66

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date Nov. 10, 1969

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 50 days to 74 days, within which to complete our Contract No. 7299, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

During the period September 22, 1969, through October 23, 1969 inclusive, only 25% of the crew could work because of the utility poles being in the road. Therefore, out of this 32 day period we lost 24 working days (75% of 32).

Respectfully submitted,

E. W. Eldridge Inc.
Contractor

By E. W. Eldridge

CONSENT OF SURETY

Date November 10, 1969

We, UNITED PACIFIC INSURANCE CO.
, as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Lloyd Arvidson
Lloyd Arvidson, Attorney-in-fact

(SEAL)

Resident Agent

UNITED PACIFIC INSURANCE COMPANY

A MEMBER OF UNITED PACIFIC INSURANCE GROUP

HOME OFFICE: TACOMA, WASHINGTON 98401

FIDELITY AND SURETY DEPARTMENT

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That the UNITED PACIFIC INSURANCE COMPANY, a corporation of the State of Washington, having its principal offices in the city of Tacoma, Washington, pursuant to authority granted by By-Law No. 37-A of its By-Laws, which reads as follows:

"The President, any Executive Vice-President, any other Vice-President, any Assistant Vice-President, or any Resident Vice-President of this Corporation, shall have authority to appoint in writing such attorneys-in-fact as the business of the Company may require, and to authorize such attorneys-in-fact, and each of them, to execute on behalf of the Company, any bonds, recognizances, stipulations, contracts of indemnity and other undertakings of like character, or to exercise any lesser number of said powers as hereinbefore set forth.

"Said appointments shall be attested by the Secretary or an Assistant Secretary of this Corporation under its seal. The signature of the Secretary or any Assistant Secretary to certified copies of such powers of attorney may be original or facsimile, and when the corporate seal is affixed thereto, any third party may rely on said certified copies of powers of attorney as the act and deed of this Corporation. The President, any Executive Vice-President, any other Vice-President, any Assistant Vice-President, or any Resident Vice-President may revoke any appointment made pursuant hereto, and revoke any and all authority conferred by any such appointment."

does hereby nominate, constitute and appoint ROBERT E. DOWSETT or LLOYD ARVIDSON of GRESHAM, OREGON

its true and lawful Attorney-in-Fact, to make, execute, seal and deliver for and on its behalf, as surety, and as its act and deed,

ANY AND ALL BONDS AND UNDERTAKINGS OF SURETYSHIP.

The execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Tacoma, Washington, in their own proper persons.

IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be signed by its _____ Vice-President and its corporate seal to be hereto affixed, duly attested by its Assistant Secretary, this 11th day of August, 19 64.

UNITED PACIFIC INSURANCE COMPANY

Attest: s/ GERRY L. WHITE
Assistant Secretary

By s/ MORRIS E. BROWN (SEAL)
Vice-President

STATE OF WASHINGTON }
County of PIERCE } ss.

On this 11th day of August, 19 64, personally appeared MORRIS E. BROWN and GERRY L. WHITE, to me known to be the _____ Vice-President and Assistant Secretary, respectively, of UNITED PACIFIC INSURANCE COMPANY, and acknowledged that they executed and attested the foregoing instrument and affixed the seal of said corporation thereto, and that By-Law No. 37-A, set forth therein, is still in full force.

Witness my hand and seal hereto affixed the day and year first above written.

My Commission Expires October 12, 19 69.

s/ Irene C. Krier
Notary Public in and for the State of Washington
Residing at Tacoma

STATE OF WASHINGTON }
County of PIERCE } ss.

I, GERRY L. WHITE Assistant Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the foregoing instrument is a true copy of a Power of Attorney duly and regularly issued by said Company, and that the same is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company at the City of TACOMA this 10th day of November, 19 69.

Gerry L. White (SEAL)
Assistant Secretary

B-1027A General — Power of Attorney Rev. 11-66

SU-128(6)C 7299 C

FORM S-1 (REV. 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Powder River		WEEK ENDING: December 26, 1969
		SECTION PREFIX: 501-1068
HIGHWAY: FAS 506		COUNTY: Baker
NAME OF JOB: Powder River Section	KIND OF WORK: Grading & Stone Base	
CONTRACTOR: E. W. Eldridge, Inc.	CONTRACT NUMBER: 7299	FEDERAL AID PROJECT NUMBER: SU-128(6)
DATE OF CONTRACT: Sept. 5, 1969	DATE WORK STARTED: Sept. 24, 1969	ESTIMATED COMPLETION DATE: Completed
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS / SPECIFIED CALENDAR DAYS: work 50	WORK DAYS USED / CALENDAR DAYS USED: work 69
PROJECT AUTHORIZATION: $ 112,185.38	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 138
EXCLUSIVE OF ENGINEERING: $ 102,387.53	ENGINEERING AUTHORIZATION: $ 9,797.85	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 88,115.87	This week 0.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 90.6
ESTIMATED PERCENT: OVERRUN / UNDERRUN: under 9.4 %	ENGINEERING COST TO DATE: $ 13,000.00	DATE PROJECT WAS COMPLETED: November 26, 1969
	PERCENT OF AUTHORIZATION: 133 %	

Semi-final estimate submitted 12-25-69

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
100	100	100	100				

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	1.18	1.18			
MILES PARTIALLY COMPLETED					
MILES COMPLETED	1.18	1.18			
TOTAL ESTIMATED QUANTITIES (CONTRACT)	10,350	~~29,543.35~~ 34,300			
TOTAL QUANTITIES CORRECTED TO DATE	9,024.77	29,543.35			
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	9,024.77	29,543.35			
AVERAGE DAILY QUANTITIES	0	0			
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK: None

FINAL REPORT

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY				
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

Routing

Morgan ✓ ✓ ✓ — Peale C
Decker — Swan
Bond B — Glenn
Walker — Litchfield
Boehms — Gallagher
Johnson 9 — Stein

RECEIVED
DEC 26 1969
CONSTRUCTION DIVISION

BEN GIFFORD

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

This job is complete and the semi-final estimate was submitted 12-25-69.

This job is overtime and a request for extra workdays has been submitted.

FINAL REPORT

SIGNED R. Blickenstaff LOCATION Baker

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-F216

Section Powder River
Highway FAS 506
Contract No. 7299
F.A. Proj. No. SU-128(6) Dec 26 1969

Job Completed

Contract Completed _ _ _ _ _ _ _ _ _

Engineering Expended _____

PERCENT

120
100
80
60
40
20
0

20 40 60 80 100 120 140 160 180 200

TIME

RECEIVED
DEC 22 1969
FOR FILING

SU-128(4)
7299

December 19, 1969

Oregon State Highway Commission

Gentlemen:

Request for Extension of Time
No. 9
December 23, 1969 meeting

K. W. Kildridge, Inc., has requested a 24-day time extension on the Powder River Section of FAS 506, Contract No. 7299, in Baker County. Basis of the request is delay in utility relocations within the project.

This project was contracted in September, 1969, with a relatively short time allowed in order to obtain completion within the remainder of the construction season. Utility poles involving facilities of two different companies had to be relocated and, though this work was started fairly early in the project, it was not completed in time to avoid significant conflict with the contractor's operations. In mid-October, grading had to be interrupted for a few days awaiting removal of poles and at other times grading progress was hindered by the presence of poles.

The project was completed November 26 with 19 days liquidated damages assessed in the total of $1,425. The utility delay justifies extension of time and I recommend that a 19-day extension be granted which will delete all liquidated damages. This is a Secondary Urban project and does not require specific approval of the Bureau of Public Roads.

This matter will be on the agenda for your consideration at the December 23 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
V. D. Wolfe
F. D. Morgan
V. E. Skoog
H. S. Coulter

JAB:fw sr

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7299 Contractor E. W. Eldridge, Inc.

Highway Powder River Section of FAS 506 in Baker County

Section

Kind of Work Grading and Stone Base

It is recommended that the request for increase in the number of workdays within which to complete said contract be ~~DENIED~~ GRANTED. The reasons for such recommendation are as follows:

Recommend 19 day extension for delay in relocating utilities.

Recommended for Approval:

Alfred Staley Jr
Asst. Division Engineer

Peter A. Bond
for Construction Engineer or Bridge Engineer

J. K. Lobe
Assistant State Highway Engineer

Contract No.	7299
Project designation	[illegible](6) State-Federal
Date awarded	Sept. 5, 1969
Work started	Sept. 24, 1969
Per cent completed	[illegible] Date Nov. 18, 1969
No. of Workdays Allowed	50
No. of Workdays Used	62
No. of Added Workdays Requested	24

State Printing 27089

E—220 (Rev.)—8M—6-60

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date Nov. 10, 19 69

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from ..... days to ..... days, within which to complete our Contract No. 1299, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

During the period September 22, 1969, through October 23, 1969 inclusive, only 25% of the crew could work because of the utility poles being in the road. Therefore, out of this 32 day period we lost 24 working days (75% of 32).

Respectfully submitted,

.....
Contractor

By .....

CONSENT OF SURETY

Date November 10, 1969

We, UNITED PACIFIC INSURANCE CO.
....., as

surety on the bond guaranteeing the completion of the contract above named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Lloyd Arvidson
Attorney-in-fact (SEAL)

Walt K. Krupke
Resident Agent

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7299 Contractor E. W. Eldridge, Inc.

Highway Powder River Section of FAS 506 in Baker County

Section

Kind of Work Grading and Stone Base

It is recommended that the request for increase in the number of workdays within which to complete said contract be ~~DENIED~~ or GRANTED. The reasons for such recommendation are as follows:

Recommend 19 day extension for delay in relocating utilities.

Recommended for Approval:

Asst. Division Engineer

for Construction Engineer

State Highway Engineer

Contract No.	7299
Project designation	SU-128(6) State-Federal
Date awarded	Sept. 5, 1969
Work started	Sept. 24, 1969
Per cent completed	80% Nov. 18, 1969 Date
No. of Workdays Allowed	50
No. of Workdays Used	61
No. of Added Workdays Requested	24

State Printing 37020

E—220 (Rev.)—GM—8-69

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date Nov. 10, 1969

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 50 days to 74 days, within which to complete our Contract No. 7299, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

During the period September 22, 1969, through October 23, 1969 inclusive, only 25% of the crew could work because of the utility poles being in the road. Therefore, out of this 32 day period we lost 24 working days (75% of 32).

Respectfully submitted,

E. W. Eldridge Inc.
Contractor

By E. W. Eldridge

CONSENT OF SURETY

Date November 10, 1969

We, UNITED PACIFIC INSURANCE CO.,

as surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Lloyd Arvidson
Attorney-in-fact

(SEAL)

Resident Agent

STATE COPY

Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-45		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT (PPM 21-7) 9-17-69	COUNTY
3		Baker
		PROJECT NO. S0-128(6)

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

Powder River Section of FAS 506

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	8-6-69	1.192
OTHER (Specify)		

FUNDS Pro Rata 63.54

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 107,556	$ 68,300.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By J. K. Klabo

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By A. L. Green
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer SEP 19 1969

Oregon State Highway Division

Federal-Aid
Project No. SU-128(6)

POWDER RIVER SECTION OF

FAS 506 IN BAKER COUNTY

Project agreement estimate.

Salem, Oregon, September 10, 1969

Type Code 2010
Roadway (Sta. 0+12 to Sta. 63+06)(Contract No. 7299)

Temporary Protection and Direction of Traffic	All Required		$ 3,000.00
Clearing and Grubbing	All Required		3,600.00
Ditch Excavation, Unclass.	60 cu.yd.	$ 6.00	360.00
Embankment in Place	9,850 cu.yd.	1.80	17,730.00
Finishing Roadbed and Slopes	1.18 mile	1,200.00	1,416.00
Trench Excavation	440 cu.yd.	6.00	2,640.00
Watering	550 M-gal.	8.00	4,400.00
Pavement Replacement	76 lin.ft.	5.00	380.00
Subbase	34,300 ton	1.32	45,276.00
Class "A" Concrete in Walls	32 cu.yd.	120.00	3,840.00
Reinforcement in Walls	2,330 lb.	0.25	582.50
12-inch Culvert Pipe	770 lin.ft.	5.00	3,850.00
18-inch Culvert Pipe	130 lin.ft.	7.00	910.00
36-inch Culvert Pipe	24 lin.ft.	11.00	264.00
24-inch Arch Type Pipe	140 lin.ft.	12.00	1,680.00
36-inch Arch Type Irrigation Pipe	140 lin.ft.	15.00	2,100.00
42-inch Siphon Pipe	100 lin.ft.	24.00	2,400.00
Concrete Siphon Box	2 only	300.00	600.00
Adjusting Manholes	18 only	125.00	2,250.00
			$ 97,278.50
Flagging (60% of Contractor's Cost)	All Required		$ 500.00
	Subtotal		$ 97,778.50
	10% Engr. & Cont.		9,777.50
	Total		$107,556.00

Length of Roadway - - - - - 1.177 Miles
Length of Structure - - - - 0.015 Mile (Exception)
Total 1.192 Miles

Cost of Roadway Per Mile- - $91,381.47

Federal Funds -	$ 68,300.00
State Funds -	19,628.00
County Funds- -	19,628.00
	$107,556.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920;
Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

G-1 100%

Prefix: 501-1068

POWDER RIVER SECTION

PROJECT NO. SU-128(6)

State Work - Nonparticipating

Adjust Mail Boxes	All Required	$200.00

Fas 506
Baker Co.
Proj. Eng. City of Baker

NOTED
H. S. COX

September 17, 1969

Baker County Court
Courthouse
Baker, Oregon 97814

Attention Hon. Lloyd Hess
Baker County Court

Mr. Vernon E. Jacobsen
City Manager
City Hall
Baker, Oregon 97814

Re: Powder River (McDougall Lane) Section
McDougall Lane
FAS 506
Baker County

Gentlemen:

This is to acknowledge receipt of the County's advance deposit in the amount of $22,400 (City of Baker $11,200 and Baker County $11,200) subject project.

A copy of the construction plans and contract 7299 are enclosed for your information and reference. If more copies are desired, please do not hesitate to request same.

Very truly yours,

H. S. Cox
County and City Engineer

By: Harold Reynoldson
Planning Engineer

HR:ljt
Enclosure

NOTED
P. B. Assessment

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
DON HARWELL

LLOYD REA
COUNTY JUDGE
GILL C. WRIGHT
F. M. PHIPPS
COMMISSIONERS

BAKER COUNTY
BAKER • OREGON

September 3, 1969

H. S. Cox
County & City Engineer
Oregon State Highway Department
Salem, Oregon 97310

Re: Powder River (McDougall Lane) FAS 506

Attention: Harold Reynoldson
Planning Engineer

Dear Mr. Reynoldson:

Enclosed please find a county warrant #1973 in the sum of $11,200.00, and a check #016869 drawn on the city of Baker for $11,200.00, making a total of $22,400.00. This is County-City matching funds on the Powder River (McDougall Lane) Project, FAS 506.

We are also enclosing the "Certificate of Right of Way" form completed and signed by the Baker County Court.

Sincerely,

Lloyd Rea

Lloyd Rea, County Judge

RECEIVED
SEP - 5 1969
ENGINEER
COUNTY & CITY DIVISION

Gill C. Wright, County Commissioner

F. Wilbur Smith

F. Wilbur Smith, County Commissioner

encls: County Warrant # 1973 - $11,200.00
City Check #016869 - $11,200.00
Right of way Certificate

NOTED
DON HARWELL

RECEIVED
NOV 1 - 1969
FOR FILING

54-128(6)
7299

September 5, 1969

E. W. Eldridge, Inc.
P. O. Box 98
Sandy, Oregon 97055

Bid Aug 28

Gentlemen:

The State Highway Commission on September 2, 1969, accepted your proposal for grading and stone base on the Powder River Section (McDougal Lane) of FAS-506 in Baker County for the sum of $97,278.50 and referred it to the State Highway Engineer with authority to award the contract as soon as approval of Baker County was received and the sum of $22,400 was deposited by the County.

These conditions were fulfilled and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7299.

Contract forms are being prepared and will be mailed to you for execution.

Very truly yours,

Floyd Omery, Secretary
OREGON STATE HIGHWAY COMMISSION

cc

bc: Frank Morgan
D. J. Barbee
I. D. Merchant
William Geibel (SALF)
Pacific Builder & Engineer, Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wash.
Daily Journal of Commerce, Portland, Oregon
H. S. Coulter
L. B. Blickenstaff

NOTED
H. S. COX

RECEIVED
SEP - 5 1969
ENGINEER
COUNTY & CITY DIVISION

Oregon State Highway Commission
State Highway Building
Salem, Oregon

9-4-69

Attention: County and City Division

SUBJECT: Federal Aid Project No. _____

Highway No. FAS 506

Project Name Powder River (McDougall Lane)

Section _____

Gentlemen:

1. We hereby certify that, to the best of our knowledge and belief, all rights-of-way or rights-of-entry for the above referred to Federal-aid project have been secured.

2. We hereby certify that: (check one)

☒ There has been no displacement of persons from residences, farms, or businesses; or

☐ All displaced persons have been tendered all assistance possible and given all available information to assist in re-establishment in residence, farm, or business.

3. We hereby certify that the occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to Federal-aid project have been authorized by permit, franchise, or other approved procedure.

Dated at Baker, Oregon, this 4 day of Sept, 1969.

Baker County

Judge

Commissioner

Commissioner

Copy to John Oaks
Scott Coulter (Dist 7)
Dick Chase
Owen Turner

(11/29/66)

NOTED
MAINOR C. HOLMES

NOTED
HAROLD REYNOLDSON

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED

Noted
Oscar H. Norberg

NOTED
DON HARWELL

RECEIVED
SEP 11 1969
FORM E-30 (12-67)
FOR FILING

SU-128(6)
7299

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

September 4, 1969
Salem, Oregon

To:

MEMORANDUM TO THE FILES

SUBJECT:

Powder River (McDougal Lane) Sec.
Oregon Project SU-128(6)
FAS 506, Baker County

On August 28, 1969, E. W. Eldridge, Inc., of Sandy, submitted the low bid of $97,278.50 which is $23,935.00 or 32.6% over the Engineer's estimate of $73,343.50. One other bid was received in the amount of $106,713.50.

We have received a letter from the Baker County Judge approving the bids received and requesting that the State award the contract to the low bidder. The Judge stated in the letter that the court thought the bids were too high but under the circumstances they wanted the State to accept the low bid.

Although most of the items bid are higher than our estimate, the item "Subbase" is higher by $9,000 or 38% of the total overrun. Our estimate was based on a state-wide average and as we did not offer a material source the bid price was $1.32 instead of our estimate of $1.00. The second bidder was considerably higher at $1.75.

Construction costs have raised considerably in the last six months, which our estimate did not properly reflect for this project; therefore, we feel the Engineer's estimate was a little too low and the contractor's bid is reasonable. We don't feel we would get a lower bid by readvertising.

The County and City of Baker want this project completed this construction season. If awarded now, it should be completed by November 15, 1969, in accordance with their construction schedule.

Considering the foregoing, we feel it is in the public interest to award the contract at this time.

L. H. Young

L. H. Young
Program and Planning Engineer

DAR:dg
cc: R. E. Simpson, BPR
F. B. Klaboe
F. D. Morgan
H. S. Cox
C. G. Swenson
E. L. Johnson
C. E. Layton

RECEIVED
SEP 16 1969
FOR FILING

SU-1286
1299

September 4, 1969

MISC. CONTRACTS and AGREEMENTS No. 3785

Baker County Court
Courthouse
Baker, Oregon 97814

Attention: Mr. Dennis L. Fuller
County Clerk

Gentlemen:

Attached for your files is a fully executed copy of an agreement covering Powder River Section of McDougall Lane Road.

A fully executed copy of this agreement is being sent to the City of Baker and we are retaining one for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

sss

Attachment

cc H. S. Cox
(one conformed agreement attached)

MONTHLY TRANSACTION no. 8-22

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61) 7-24-69

FEDERAL-AID (P

CARD 2	REPORT NUMBER (19)(20) 1	PROJECT LOCATION (45 typewriter spaces) 21 Co. Rd. Jct. U.S. 30 E. 1.25 mi. (Baker) 65	ADT	PRESENT 500	FUTURE (69) 700 (70)		
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28 Gr. Dr. Low Type Surf. 62	NATL. FOREST (63)(65)	FH ROUTE NO. (66)(68)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72) A 5 (73) PL (74)
CARD 4	CLASS OF FEDERAL FUNDS Secondary						COUNTY NAME
	NAME OF URBAN AREA 17-31 Baker						ROUTE NO. S FEDERA 5

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJE TOTAL ESTIMATED COST	FEDERAL FUN
1	(14-18)	(19)	41	42	43 46	53		(54)(58)	(59) (66)	(67)
5 6-6-69					PE		Co. Rd. Jct. U.S. 30 E. 1.25 mi. (Baker)			
5 8-					ROW		(Powder River Section)			
5					CONST (CODE)			1.25	215,000	129,00
	30			3	2010	3				
CARD 1	CODE 1	PREPARED BY					PROJECT TOTALS	1.25	215,000	129,00
1	14	PROGRAM APPROVAL DATES							(116) (23)(24)	

NOTED
H. S. COX

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

7299

for 506 - Baker Co.)

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

-24-69

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
(Baker)	ADT	500	700	89	08	Oregon	35	022	1008
65		(66)	(70) (71) (72)				(2) (3)	(4) (9) (14) (18)	

	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	I Projects Only POST MI.	DESIG.
				A 5		SU-	128 (6)			
(68)	(69)	(70)	(71)	(72) (73)	(74) (75)	14 23	7 13		(24) (26)	27

COUNTY NAME: Baker — CODE: 001 (14) (18)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO. S — FEDERAL-AID: 506 (32) — STATE: Co. Rd. (36) (37) — U.S. (41)

	MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
30	(34) (38)	(39) (66)	(67) (76)			Gr. Dr. 2-12' lanes low type surface with 4' shoulders, guard rail, retaining wall. (County to construct leveling course and Bituminous surface)
						ROW - 60' min; access control-none; Parking Restrictions- none.
	1.25	215,000	129,000	43,000	43,000 (Co)	
ECT ALS	1.25	215,000	129,000	43,000	43,000 (Co)	
	(16)	(23) (24)	(33)			

RECEIVED
AUG 8 - 1969
ENGINEER
COUNTY & CITY DIVISION

REMARKS

Relocation Payments - None involved.

NOTED
HAROLD REYNOLDSON

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

USCOMM DUSCOMM-DC 46908-P61

NOTED
DON HARVE

POWDER RIVER SECTION

PROJECT SU-128(6)

EXISTING FACILITIES: Gravel-surfaced roadway 22-30' width. Structure over Powder River is 32' in width and was constructed in 1966 (Project #S-128(5)). Irrigation facilities under structure and along the northerly shoulder easterly of river.

ADJACENT SECTIONS:

EAST END: FAS-505

WEST END: FAI-1

PROJECT DATA: Grade, drain and base a roadway for 2-12' travel lanes and 4' shoulders; place retaining wall 200' long on the northerly shoulder of the roadway just easterly of the Powder River; guard rail at bridge ends and along retaining wall. Leveling course and wearing surface by County. Signing to be part of project.

RIGHT-OF-WAY: 60' minimum
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: No exceptions

SYSTEM ACTION: Completed
PUBLIC HEARING: Offered 6/9/69 - no request

UNUSUAL OR COMPLICATED SITUATIONS: The irrigation ditches are to be moved off the right of way by irrigation company. A 42' siphon system is to be constructed beyond the west limits of the project and is considered incidental work necessary to the project. The siphon carries the irrigation system under U.S. 30 and is a county responsibility.

ROUTE DATA: S-128(5)
SOCIAL, ECONOMIC & ENVIRONMENTAL EFFECTS CONSIDRED: Yes
PARK OR RECREATION FACILITIES INVOLVED: No
RIGHT OF WAY RELOCATION ASSISTANCE: No
LOCATION & DESIGN APPROVAL: Provisions of PPM 20-8 are being complied with.

The State does not, at this time, have legal authority to regulate the use by utilities of the rights of way of this project. However a State-County agreement is being prepared to comply with para. 6d(1) of PPM30-4.1.

POWDER RIVER SECTION

PROJECT SU-128(6)

XISTING FACILITIES: Gravel-surfaced roadway 22-30' width. Structure over Powder River is 2' in width and was constructed in 1966 (Project #S-128(5)). Irrigation facilities under structure nd along the northerly shoulder easterly of river.

OJACENT SECTIONS:

EAST END: FAS-505

WEST END: FAI-1

ROJECT DATA: Grade, drain and base a roadway for 2-12' travel lanes and 4' shoulders; place retaining all 200' long on the northerly shoulder of the roadway just easterly of the Powder River; guard rail t bridge ends and along retaining wall. Leveling course and wearing surface by County. Signing to be art of project.

RIGHT-OF-WAY: 60' minimum
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: No exceptions

YSTEM ACTION: Completed
UBLIC HEARING: Offered 6/9/69 - no request

UNUSUAL OR COMPLICATED SITUATIONS: The irrigation ditches are to be moved off the right of way by irrigation company. A 42' siphon system is to be constructed beyond the west limits of the project and is considered incidental work necessary to the project. The siphon carries the irrigation system under U.S. 30 and is a county responsibility.

ROUTE DATA: S-128(5)
SOCIAL, ECONOMIC & ENVIRONMENTAL EFFECTS CONSIDRED: Yes
PARK OR RECREATION FACILITIES INVOLVED: No
RIGHT OF WAY RELOCATION ASSISTANCE: No
LOCATION & DESIGN APPROVAL: Provisions of PPM 20-8 are being complied with.

The State does not, at this time, have legal authority to regulate the use by utilities of the rights of way of this project. However a State-County agreement is being prepared to comply with para. 6d(1) of PPM30-4.1.

TRANSACTION NUMBERS 8-22 THRU 8-25

Rec'd 8-8-69 Cy - Journ

FORM PR-48
(REV. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: OREGON

DATE: 8-6-69

BY (Signature): MR. YOUNG'S JULY 24, 1969 LETTER.

TITLE:

CLASS OF FEDERAL FUNDS: ☐ FAI ☐ FAP ☐ FAU ☒ FAS ☐ OTHERS

STAGE 1 * ITEM NOS. _____ THRU _____

STAGE 2 ITEM NOS. 1008 THRU 1011

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS	LOCATION	WORK
1008	SU 128 (6)	1.25	215,000	129,000	POWDER RIVER SECTION	GR. DR. LOW TYPE SURF.
1009	S 12-104(1) 1210(401)	7.47	475,000	285,000	MILLER RANCH-WICKIUP FOREST CAMP SECTION	BASE ROCK, INTERMEDIATE TYPE SURFACE
1010	SU 23-103(1) 2310(301)	0.51	85,000	51,000	N.W. 4TH AVENUE ARCATA WAY SECTION	IRRIGATION FACILITY ADJUSTMENT
1011	S 569(1)	0.015	85,000	51,000	SILVER CREEK (SILVERTON) BRIDGE	STRUCTURE

OTHER IDENTIFICATION AND/OR REMARKS (State)

RECEIVED
AUG 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

REMARKS (Division)

YOU ARE AUTHORIZED TO PROCEED WITH ACTIONS NECESSARY TO ADVANCE TO COMPLETION THE PHYSICAL CONSTRUCTION PROVIDED FOR BY THE ABOVE PROJECTS IN ACCORDANCE WITH THE PROVISIONS OF YOUR APPROVED SECONDARY ROAD PLAN. IF YOU SUBSEQUENTLY FIND THAT EXCEPTIONS TO THE PROCEDURE WILL BE NEEDED OR THAT YOUR PROPOSED DESIGN STANDARDS FOR THESE PROJECTS ARE LOWER THAN THE MINIMUM DESIGN STANDARDS AS APPROVED JUNE 24, 1968, THIS OFFICE SHOULD BE NOTIFIED OF SUCH PROPOSED EXCEPTIONS AND REASONS THEREOF.

FOR FILING

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE
		8-6-69	R. E. SIMPSON, DIVISION ENGINEER

RECEIVED
AUG 11 1969

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-9

MEMO TO THE FILES
July 24, 1969

Powder River Section
FAS 506
Baker County

NOTED
H. S. COX

Plans for the project indicate that two 30-inch corrigated metal pipes will be replaced with a 42-inch siphon pipe plus two siphon boxes, all for the purpose of carrying irrigation water. This adjustment of irrigation facilities extends beyond the actual limits of the westerly terminus of the project; however, it is an incidental and necessary part of the project. Baker County is responsible for adjustments and relocations of any irrigation facilities made necessary by the construction of the project and has acquired all rights of way for same. Therefore, the construction of the siphon is found to be a necessary and valid part of the total project.

Robert H. Prange
Field Engineer
County and City Division

RHP:lat

cc L. H. Young
R. N. Chase

NOTED
P. B. Arensmeier

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO B.O.

FORM PR-1 (REV. 4-61)

7-24-69

FEDERAL-AID (P

CARD 2	REPORT NUMBER (19)–(20): 1	PROJECT LOCATION (45 typewriter spaces) 21–65: Co. Rd. Jct. U.S. 30 E. 1.25 mi. (Baker)						ADT	PRESENT: 500	FUTURE (66)–(70): 700			
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28–62: Gr. Dr. Low Type Surf.	NATL. FOREST (63)–(65)	FH ROUTE NO. (66)–(69)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)–(73)	PL. (74)					
CARD 4	CLASS OF FEDERAL FUNDS: Secondary	COUNTY NAME											
	NAME OF URBAN AREA (17-31): Baker	ROUTE NO. S	FEDERAL 50										

CARD 5	LINE NO. (1&4&5)	CHANGE CODE (16)	PROJECT CODE (41)	WORK CLASS (42)	WORK TYPE (43–46)	STEP (53)	TERMINI (Full description)	MILES (54)–(58)	ESTIMATED PROJECT TOTAL ESTIMATED COST (59)–(66)	ESTIMATED PROJECT FEDERAL FUNDS (67)
5					PE		Co. Rd. Jct. U.S. 30 E. 1.25 mi. (Baker) (Powder River Section)			
5					ROW					
5					CONST (CODE)			1.25	215,000	129,000
								1.25	215,000	129,000

CARD 1	CODE 1	PREPARED BY	PROJECT TOTALS
1	14	PROGRAM APPROVAL DATES	(16) (23)–(24)

7299

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

7-24-69

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

(Baker)	ADT	PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
		500	700	89	08	Oregon	35	022	1008

RTE	SUFV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER: PREFIX LETTER(S)	NUMBER	SEQ. NO.	I Projects Only: POST M.	DESIG.
						SU-	128 (6)			

COUNTY NAME: Baker — CODE: 001

ROUTE NO. S | FEDERAL-AID: 506 | STATE: Co. Rd. | U.S.

PROGRAM STAGE: [ ] 1 OR [X] 2

MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
					Gr. Dr. 2-12' lanes low type surface with 4' shoulders, guard rail, retaining wall. (County to construct leveling course and Bituminous surface) ROW - 60' min; access control-none; Parking Restrictions-none.
1.25	215,000	129,000	43,000	43,000 (Co)	
1.25	215,000	129,000	43,000	43,000 (Co)	

REMARKS

Relocation Payments - None involved.

USCOMM DUSCOMM-DC 48903-P61

POWDER RIVER SECTION

PROJECT SU-128(6)

EXISTING FACILITIES: Gravel-surfaced roadway 22-30' width. Structure over Powder River is 32' in width and was constructed in 1966 (Project #S-128(5)). Irrigation facilities under structure and along the northerly shoulder easterly of river.

ADJACENT SECTIONS:

EAST END: FAS-505

WEST END: FAI-1

PROJECT DATA: Grade, drain and base a roadway for 2-12' travel lanes and 4' shoulders; place retaining wall 200' long on the northerly shoulder of the roadway just easterly of the Powder River; guard rail at bridge ends and along retaining wall. Leveling course and wearing surface by County. Signing to part of project.

RIGHT-OF-WAY: 60' minimum
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: No exceptions

SYSTEM ACTION: Completed
PUBLIC HEARING: Offered 6/9/69 - no request

UNUSUAL OR COMPLICATED SITUATIONS: The irrigation ditches are to be moved off the right of way by irrigation company. A 42' siphon system is to be constructed beyond the west limits of the project and is considered incidental work necessary to the project. The siphon carries the irrigation system under U.S. 30 and is a county responsibility.

ROUTE DATA: S-128(5)
SOCIAL, ECONOMIC & ENVIRONMENTAL EFFECTS CONSIDRED: Yes
PARK OR RECREATION FACILITIES INVOLVED: No
RIGHT OF WAY RELOCATION ASSISTANCE: No
LOCATION & DESIGN APPROVAL: Provisions of PPM 20-8 are being complied with.

The State does not, at this time, have legal authority to regulate the use by utilities of the rights of way of this project. However a State-County agreement is being prepared to comply with para. 6d(1) of PPM30-4.1.

POWDER RIVER SECTION

PROJECT SU-128(6)

ES: Gravel-surfaced roadway 22-30' width. Structure over Powder River is
as constructed in 1966 (Project #S-128(5)). Irrigation facilities under structure
therly shoulder easterly of river.

:

FAS-505

FAI-1

ade, drain and base a roadway for 2-12' travel lanes and 4' shoulders; place retaining
the northerly shoulder of the roadway just easterly of the Powder River; guard rail
d along retaining wall. Leveling course and wearing surface by County. Signing to be

60' minimum
None

None
TANDARDS: No exceptions

Completed
Offered 6/9/69 - no request

ICATED SITUATIONS: The irrigation ditches are to be moved off the right of way by
ny. A 42' siphon system is to be constructed beyond the west limits of the project
d incidental work necessary to the project. The siphon carries the irrigation system
d is a county responsibility.

128(5)
& ENVIRONMENTAL EFFECTS CONSIDRED: Yes
ON FACILITIES INVOLVED: No
OCATION ASSISTANCE: No
N APPROVAL: Provisions of PPM 20-8 are being complied with.

does not, at this time, have legal authority to regulate the use by utilities of the
this project. However a State-County agreement is being prepared to comply with
PM30-4.1.

NOTICE

In conformance with Policy and Procedure Memorandum 20-8, promulgated by the Federal Highway Administration, the Baker County Court, having received negative response to an offer for a public corridor-design hearing, has requested Oregon State Highway Division's approval of the combined route location and highway design for right-of-way acquisition and construction on the Powder River Section of McDougall Lane in Baker County, Oregon.

The proposal consists of drainage, grading, and stone base surfacing 32 feet wide on McDougall Lane (Hughes Lane) from the Old Oregon Trail Highway (US 30) easterly to the Baker-Copperfield Highway, along the northerly city limits of Baker.

Maps and related data pertinent to the proposal are on file and available for review in the Highway Division files, State Highway Building, Salem.

Floyd Quarry, Secretary
OREGON STATE HIGHWAY COMMISSION

# # # # #

RHP:sb
7/23/69

SAFETY: NO

MEMO TO R. N. CHASE Date July 17, 1969

FAS 506 ; BAKER COUNTY; McDOUGALL LANE; POWDER RIVER SECTION

TERMINI: Along the northerly city limits of the City of Baker between FAI-1 (US 30) and FAS 505 (Baker-Copperfield Highway). M.P. 0.00 to 1.25

PROPOSED WORK: Grade, base, drain, and irrigation.

NOTED
H. S. COX

PROJECT LENGTH: 1.25 miles

COSTS:	TOTAL	FEDERAL	STATE	COUNTY	OTHER
CONSTRUCTION	$215,000	$129,000	$43,000	$43,000	

EXISTING FACILITIES: Gravel-surfaced roadway 22-30' in width. Structure over Powder River is 32' in width and was constructed in 1966 (Project #S-128(5)). Irrigation facilities under structure and along the northerly shoulder easterly of river.

ADJACENT SECTIONS:
EAST END: FAS 505

WEST END: FAI-1

PROJECT DATA: Grade, drain, and base a roadway for 2-12' travel lanes and 4' shoulders; place retaining wall 200' long on the northerly shoulder of the roadway just easterly of the Powder River; guard rail at bridge ends and along retaining wall. Leveling course and wearing surface by County. Signing to be part of project.

RIGHT-OF-WAY: 60' minimum
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: No exceptions

SYSTEM ACTION: Completed
PUBLIC HEARING: Offered 6/9/69 - no request

UNUSUAL OR COMPLICATED SITUATIONS: The irrigation ditches are to be moved off the right of way by irrigation company.

ROUTE DATA: S-128(5)
SOCIAL, ECONOMIC & ENVIRONMENTAL EFFECTS CONSIDERED: Yes
PARK OR RECREATION FACILITIES INVOLVED: No
RIGHT OF WAY RELOCATION ASSISTANCE: No
LOCATION & DESIGN APPROVAL REQUESTED: Yes

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED

7-14-69

RESOLUTION

In accordance with Section 141, Chapter 1, Title 23, United States Code, Baker County does hereby resolve and give the following assurances:

1) that every reasonable effort shall be made to acquire the real property by negotiation;

2) that the construction of projects shall be so scheduled that to the greatest extent practicable no person lawfully occupying the real property shall be required to move from his home, farm, or business location without at least 90 days' written notice from the State or political subdivision having responsibility for such acquisition; and

3) that it will be the policy of the County, before initiating negotiations for real property, to establish an amount which is believed to be just compensation, under the law of the State, and to make a prompt offer to acquire the property for the full amount so established.

RECEIVED
JUL 17 1969
ENGINEER
COUNTY & CITY DIVISION

APPROVED July 14th 1969
COUNTY COURT OF Baker COUNTY
BY Beryl Kea
COUNTY JUDGE
Geel E Taylor
COUNTY COMMISSIONER
J. Wallace Smith
COUNTY COMMISSIONER

STATE OF OREGON, County of Baker, ss.

I hereby certify that I have compared the within instrument with the original instrument now on file in my office, and that it is a true and correct copy of the same and of the whole thereof.

Dated 7/15/69 Dennis L Fuller County Clerk

By Anita C Johnson Deputy

COUNTY COURT STATE OF OREGON * BAKER COUNTY

RECEIVED
JUL 15 1969
ENGINEER
COUNTY & CITY DIVISION

7-11-69

IN THE COUNTY COURT OF THE STATE OF OREGON

FOR THE COUNTY OF BAKER

In the Matter of the Hughes Lane (FAS 506).

RESOLUTION

THIS MATTER comes on regularly before the Court this 10th day of July, 1969, sitting for the transaction of the business of Baker County, and

WHEREAS Baker County has been participating in the planning, reconstructing, and otherwise improving of that public thoroughfare across the northern limits of the City of Baker known as "Hughes Lane", in a project designated FAS 506, and

WHEREAS it is contemplated that certain aspects of the project will be bid upon on August 28th, 1969, and that further clarification of Baker County's position is needed in furtherance of the programing of the project,

NOW, THEREFORE, be it hereby RESOLVED by the Baker County Court, sitting for the transaction of the business of Baker County as aforesaid, that:

(1) Baker County has considered the social, economic and environmental effects of the design and location of FAS Project No. 506, and does hereby find that said project is compatible to the comprehensive plan prepared by the Baker City Planning Commission in 1966.

(2) Baker County does now and hereby request the Oregon State Highway Department to give location and design approval for the said proposed project consisting at drainage, grading and rock surfacing 32 feet wide on the said Hughes Lane from the Old Oregon Trail (United States Highway No. 30) easterly to the Baker-Homestead Highway.

(3) A duplicate original hereof, fully executed and attested to by the Baker County Clerk shall be forthwith transmitted to the Oregon State Highway Department.

County Judge

/s/ Gill C Wright
County Commissioner

/s/ F. Wilbur Smith
County Commissioner

ATTEST:

/s/ Dennis L. Fuller
Baker County Clerk

STATE OF OREGON, County of Baker, ss.

I hereby certify that I have compared the within instrument with the original instrument now on file in my office, and that it is a true and correct copy of the same and of the whole thereof.

Dated 11 July, 1969

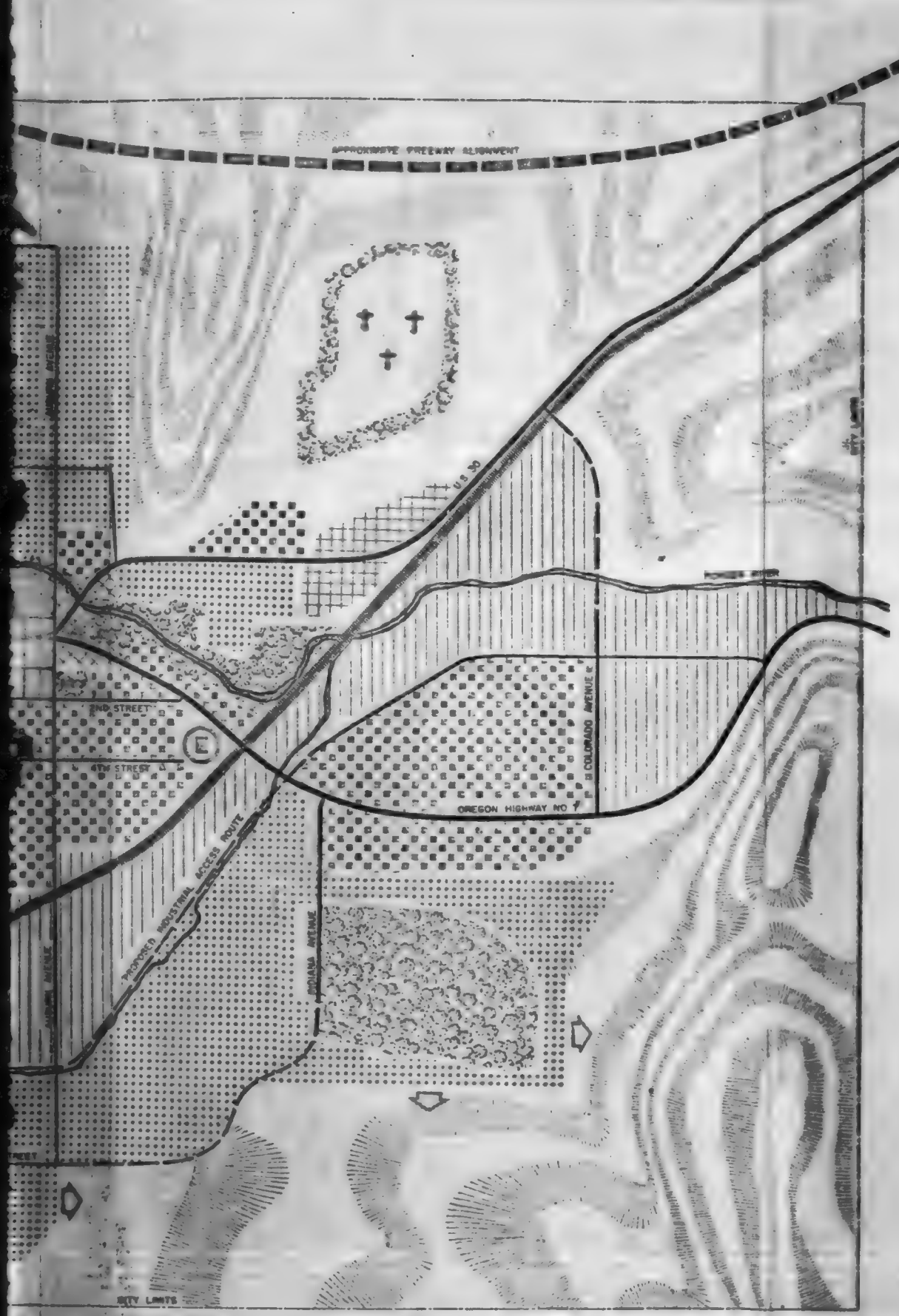
County Clerk

By Dennis L Fuller Deputy

COUNTY COURT STATE OF OREGON * BAKER COUNTY *

BIRCH STREET
CLARK STREET
CAMPBELL STREET
WASHINGTON AVENUE
MARION AVENUE
3RD STREET
4TH STREET
PROPOSED INDUSTRIAL ACCESS ROUTE
CITY LIMITS
BROADWAY STREET
UNION PACIFIC RAILROAD
D STREET
M STREET
CEDAR STREET
COLLEGE STREET
U.S. 30
HUGHES LANE
POWER RIVER
APPROXIMATE FRINGE AREA LIMITS
(E)
(I-H)
(H)

(2



COMPREHENSIVE PLAN

Legend

- lower density residential
- medium density residential
- higher density residential
- limited commercial
- general commercial
- city center commercial
- industrial
- parks
- schools
  - elementary (E)
  - junior high (J H)
  - senior high (H)
  - proposed
- streets
  - existing
  - proposed

CITY OF BAKER
OREGON

SCALE IN FEET

N

CH2M

PLATE 5

FAS 506 Baker Co. 1

NOTED
H. S. COX

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Baker, Oregon
June 19, 1969

SUBJECT: US Hwy. 30 @ Ore. Hwy. 86 Section
McDougall Lane FAS 506
Prefix 501-1419

To:
Mr. H. S. Cox
County & City Engineer
Salem

A few days ago your office asked us to furnish you with a plat of Section 8, T9S, R40 EWM and a plat of the "Prochnow Tracts" which were taken out of Ferenbachs Addition.

In checking with the county offices we were assured there is not, and never was a Prochnow Tracts plat. In 1949, Genevive Parke and Ferd Prochnow purchased either all or part of Ferenbachs Addition and, as I understand it, proceeded to disregard the established lot and block lines and sell off miscellaneous parcels as shown on the enclosed plat of Ferenbachs Addition.

A plat of Section 8 is also enclosed and I believe these are the only plats available covering this area.

RECEIVED
JUN 23 1969
ENGINEER
COUNTY & CITY DIVISION

L. V. Blickenstaff
L. V. Blickenstaff
Resident Engineer

c/c H. S. Coulter

To Floyd Scott 6/23/69

NOTED
HAROLD
REYNOLDSON

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
MAINOR C. HOLMES

NOTED
DON HARWELL

RECEIVED
MAY 28 1969
GAME COMMISSION

SCI-13X(4)

OFFICE OF THE DIRECTOR

7299

P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
J. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

May 23, 1969

cc's sent 5-27-69

F.B. Klaboe/
F.D. Morgan
L.H. Young
G.C. Wills
F.E. Terpin (11)
T.C. Roake (11)
A.E. Johnson (4)
L.W. Rulien (6)
R.D. Asburry (8)
C.T. Keasey (2)
A.F. Parson (2)

State Highway Engineer
State Highway Department
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

We have reviewed the project plan title sheets sent with your letter of May 19, 1969.

The projects are all approved as there will be no conflict with wildlife resources. The approved projects are listed below.

1. Fremont Bridge Section
   Stadium Freeway, Multnomah County

2. Nyberg Road Interchange Section
   Pacific Highway, Washington County

3. Fountain Slide Section
   Columbia River Highway, Hood River County

4. Kittridge Avenue (Portland) Channelization Section
   Columbia River Highway, Multnomah County

5. Division Street-Hilda Street (Oregon City) Section
   Cascade Highway, Clackamas County

6. Columbia River Highway-Old Portland Road Section
   FAS 574 (Gable Road), Columbia County

7. Ward Drive-Silverton Road Section
   FAS 741 (Lancaster Drive), Marion County

8. Crater Lake Highway-South Fork Reese Creek Section
   FAS 15-101, Jackson County

9. Powder River (McDougal) Lane Section
FAS 506, Baker County

10. Murder Creek Section
Pacific Highway, Linn County

11. Saddle Mountain Junction-Little North Fork Nehalem River Section Sunset Highway, Clatsop County.

Regarding the final project listed, "Saddle Mountain Junction, Little North Fork Nehalem River Section," passage for fish should be maintained and precautions should be taken against siltation.

Very truly yours,

JOHN W. McKEAN
DIRECTOR

By R. O. Koski

R. O. Koski
Chief of Liberations

ROK:js

cc: Dir. OFC

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
H. S. COX

FAS 516

NOTICE

5-16-69

NOTICE is hereby given that Baker County has proposed plans for future right-of-way acquisition and construction of the Hughes - McDougall Lane a county road/ city Street lying partially within the City of Baker, Baker County, Oregon.

The proposal consists of Construction and Paving.

This notice is given in compliance with federal regulations and state statutes pertaining to this type of proposal whereby it is required that public notice be given to enable interested persons to request a hearing on the proposal. If any interested person desires such a hearing, a request for a hearing should be directed to the County Court, Courthouse, Baker, Oregon, on or before June 6, 1969.

RECEIVED
MAY 16 1969
ENGINEER
COUNTY & CITY DIVISION

/s/ Lloyd Rea

/s/ Gill C. Wright

/s/ F. Wilbur Smith

Publication dates: 1st: Wed. ~~XXXX~~ May 14, 1969
2nd: Wed. May 21, 1969.

NOTED
HAROLD REYNOLDSON

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
F. B. Arensmeier

NOTED
R. H. PRANGE

NOTED

NOTED
H. S. COX

F15 "16

NOTICE

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RECEIVED
MAY 16 1969
ENGINEER
COUNTY & CITY DIVISION

/s/ Lloyd Rea

/s/ Gill C. Wright

/s/ F. Wilbur Smith

Publication dates: 1st: Wed, ~~May~~ May 14, 1969
2nd: Wed, May 21, 1969.

NOTED
HAROLD
REYNOLDSON

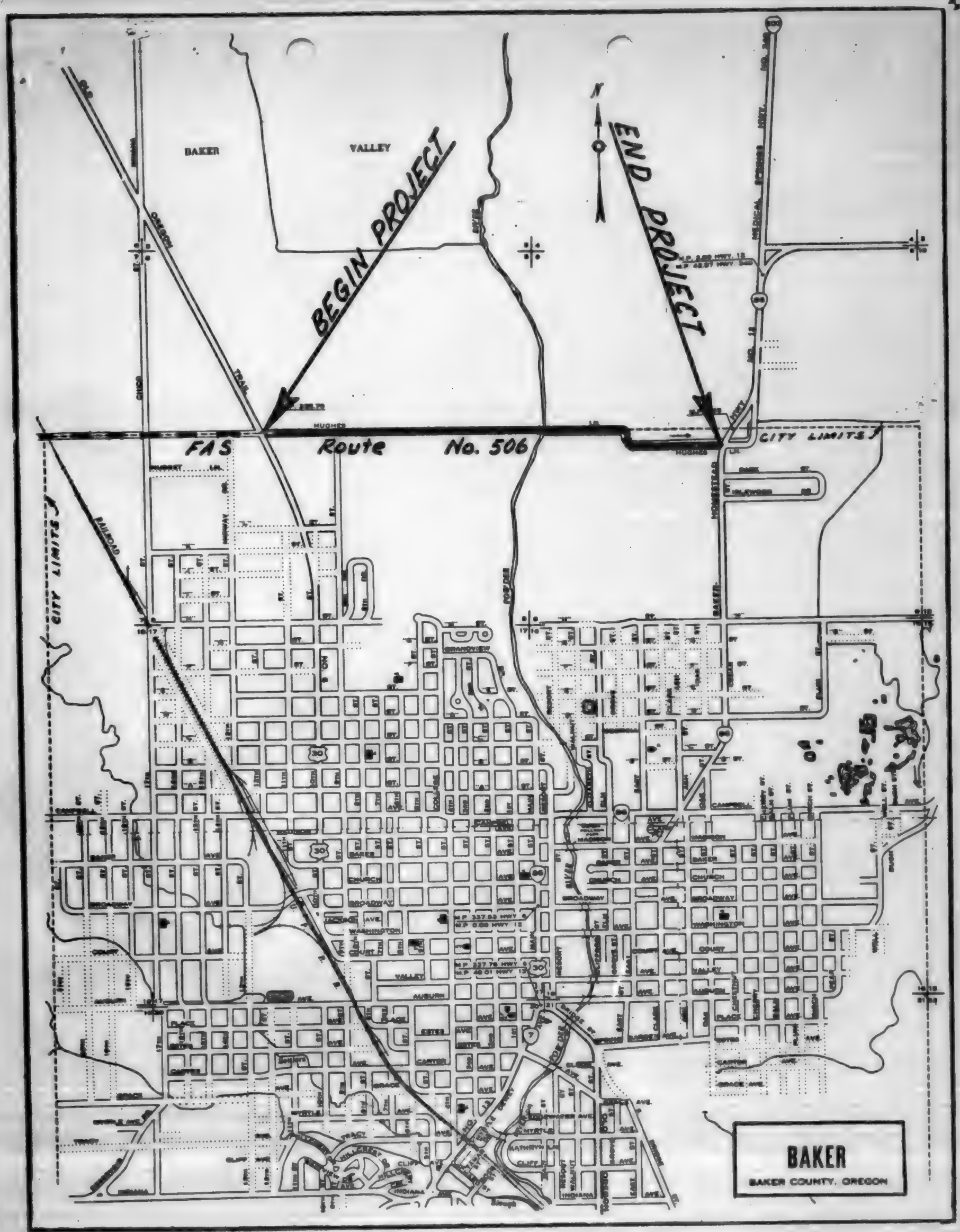
NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

NOTED
DON HARWELL


BEGIN PROJECT
END PROJECT
N
BAKER
VALLEY
FAS Route No. 506
CITY LIMITS
BAKER
BAKER COUNTY, OREGON

NOTED
H. S. COX

April 22, 1969

Honorable Lloyd Rea
Baker County Judge
Courthouse
Baker, Oregon 97814

Dear Judge Rea:

In regard to the public hearing on the Powder River (McDougall Lane) Section of FAS 506, we are fearful that Baker County cannot complete all of the hearing requirements in time for the June 26 bid letting. Therefore, in order to give you more time to publish your notices in the local newspapers, hold a public hearing, and send us all of the required documentation eight weeks prior to the bid letting date, we have rescheduled the McDougall Lane project for July 31.

Pursuant to the 1968 Federal-Aid Highway Act, the counties are now required to give certain assurances relating to the acquisition of right of way. You will find enclosed a resolution for adoption by the County Court giving these assurances. Please adopt the resolution and return one copy to this office. If you make it a part of your Court records, it will then be good for not only this current project but also for all future Federal-aid Secondary projects in Baker County.

If you need additional letters, notices, maps, etc., other than those give to you by Mr. Cox in February, please let me know. Also, if you will send a copy of your first notification giving the time and date of the hearing, I will send you a supply of materials to assist you in conducting the hearing.

Very truly yours,

R. H. Prange
Field Engineer
County and City Division

RHP:eb

Enc.

NOTED
HAROLD REYNOLDSON

NOTED
P. B. Aronsmeier

NOTED
RICHARD UNREIN

NOTED
MANNOR C. HOLMES

NOTED
DON HARWELL

NOTED
R. H. BRANGE

NOTED
H. S. COX

May 1, 1969
(date)

RECEIVED
MAY 8 - 1969
ENGINEER
COUNTY & CITY DIVISION

Baker County Court
Courthouse
Baker, Oregon 97814

In order to comply with requirements of the Bureau of Public Roads covering protection of public resources such as recreational areas, historical sites, wild life refuges, or any other facility in which the public has a specific interest, it is required that local public authorities should be consulted regarding the impact on these resources of a planned highway improvement.

Would you please fill out the form below regarding these resources and return it to the Oregon State Highway Department, County and City Division, State Highway Building, Salem, Oregon (97310). Retain the second copy for your records.

NOTED
DON HARWELL

Highway FAS 506

Section Powder River (McDougall) Lane Section: Grade & Stone Base

Do you know of any public organization or quasi-official organizations that might be opposed to this project on the grounds of interference with recreational, historical, or public resources? Yes ☐ No ☒

If answer is yes, please list organizations:

NOTED
HAROLD
REYNOLDSON

May 7, 1969
(date)

By Lloyd Lee

By Lee O Knight
Commissioner

By F. William Smith
Commissioner

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

Noted
Oscar H. Norberg

NOTED
P. B. Arensmeier

cc: L. H. Young
Attn: Duane Ridings

NOTED
R. H. PRANGE

RECEIVED
MAY 14 1969
ENGINEER
COUNTY & CITY DIVISION

May 1, 1969
(date)

NOTED
H. S. COX

Mr. Vernon Jacobson
City Manager
City Hall
Baker, Oregon 97814

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NOTED
DON HARWELL

NOTED
MAINOR C. HOLMES

Highway FAS 506

Section Powder River (McDougall) Lane: Grade & Stone Base

Do you know of any public organization or quasi-official organizations that might be opposed to this project on the grounds of interference with recreational, historical, or public resources? Yes [ ] No [X]

If answer is yes, please list organizations:

May 3 1969
(date)

By Vernon Jacobson

NOTED
HAROLD REYNOLDSON

By _____
Commissioner

By _____
Commissioner

cc: L. H. Young
NOTED Attn: Duane Ridings
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
T. B. Arensmeier

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

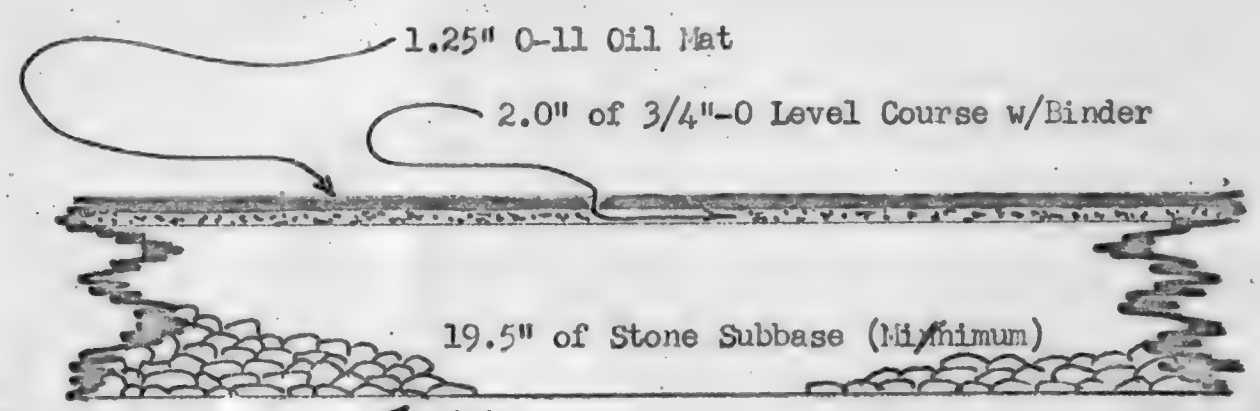
Section POWDER RIVER (McDOUGAL LANE) Highway F.A.S. 506 County BAKER Prefix 501-1419

Res. Engr. L. V. Blickenstaff Approx. Length 1.25 Miles. Sta. _____ to Sta. _____ Date 4-22-69
Lean

Truck A.D.T. 68 Traffic Coefficient 7.0 18 kip s.a. per day 21.0.

Annual Precipitation 10" Frost Penetration 36"-48".

(1)
Typical Soil
29 LL
8 PI
59 %P 10
35 %P200
41 %Gravel
10 %C Sand
14 %F Sand
21 %Silt
14 %Clay
21 "R" Value



CBE Total Req.	Credit	Actual Thick.	
	1.5	1.25	0-11
	2.0	2.0	Level
	15.5	19.5	Stone Subba
19.5	19.0	22.75	

See Page 2 for remarks.

AASHO CLASSIFICATION:
A-2-4

MATERIAL SOURCES:
To be determined by the Engineer.

RECEIVED APR 28 1969 FOR SOILS & GEOLOGY SECTION

B.P.R.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist

County-City (2)

Submitted by _____ for Staff Assistant

Recommended by _____ asst Engineer of Materials

Recommended by _____ asst Construction Engineer

Approved by _____ Asst. State Highway Engineer

NOTED E. B. KLABOE

SECTION: POWDER RIVER (McDOUGAL LANE)

HIGHWAY: F.A.S. 506

COUNTY: BAKER

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	P.M.B.B. or C.T.B.	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
NONE							

Remarks:

The major portion of the project will be on fill or a grade change. The material available for embankment (See attached letter) is gravel that meets all requirements for Stone Subbase.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0 " Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8 " Crushed Base
1.0"	Cement Treated Base	=	1.8 " Crushed Base
1.0"	Oil Mat	=	1.1 " Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8 " Crushed Base
1.0"	Lime Treated Subgrade	=	___ " Crushed Base

TRAFFIC ANALYSIS

SECTION: POWDER RIVER - (McDOUGAL LANE)

HIGHWAY: F.A.S. 506

COUNTY: BAKER

800 Present ADT (1968)

7 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	32	1.4	45	39	450	17,550
3	14	1.4	20	17	1000	17,000
4	0	---	--	--	1250	-----
5	10	1.4	14	12	3180	38,160
6	0	---	--	--	2570	-----
				68	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 72,710

TWENTY YEAR EWL 1,454,200

TRAFFIC COEFFICIENT 7.0

SECTION: POWDER RIVER (McDOUGAL LANE)

HIGHWAY: F.A.S. 506

COUNTY: BAKER

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A. C. or Oil
7. Stage Construction: Not applicable
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: County prefers Oil
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made for this project. See Items 6 and 12.

COPY

Decdmber 27,1968

RECEIVED
JAN 3 1969
ENGINEER
COUNTY & CITY DIVISION

Oregon State Highway Department
State Highway Building
Salem, Oregon

Att: Mr. Si Cox County-City Relations Eng.

Dear Si:

Base and Sub-base material for the F.A.S. McDouga.. Lane Construction Project is available to be purchased .20 per cubic yard, bank run from a tract of land conta..3 29.77 acres controlled by the Baker Redi-Mix lying in t.. W½ of the SW¼ (Tax Lot 1400) of Section 10, TWP 9S, R. 4.. W.W.M.

This same material was used by the Freeway Contractor J.T. Parker east of Baker.

Very truly yours,

Durward L. Best

Durward L. Best, Roadmaster
Baker County Road Dept.

Vernon Z. Jacobson

Vernon Z. Jacobson
City Manager, City of Baker, Oregon

VZJ/be

cc: Moore

Baker

10-66

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Baker, Oregon
January 8, 1969

NOTED
H. S. COX

SUBJECT: McDougall Lane, FAS 5[illegible]
US 30-Ore. 86
501-1419

RECEIVED
JAN 9 - 1969
REC'D DIV. OFFICE
LA GRANDE

RECEIVED
FEB 4 - 1969
ENGINEER
COUNTY & CITY DIVISION

To:
Mr. A. F. Parson
Division Engineer
La Grande

The location for the subject project calls for the installation of a siphon under US 30 to carry irrigation water. The siphon boxes would be outside the right of way of both US 30 and FAS 506 and the county should acquire the necessary right of way for this installation.

I am enclosing a deed photostat covering the land on both sides of US 30 and suggest that our Salem office prepare descriptions for the acquisition of this property and send them to Baker County for their use.

Called the County
Talked to Judge Rea and
Durwood Bertabout this syphon
They have been informed by

NOTED
A. F. PARSON

L. V. Blickenstaff
L. V. Blickenstaff
Resident Engineer

NOTED
HAROLD
REYNOLDSON

CC Barbee w/deeds.—
Please prepare descriptions for County.—
HSC

Routing

1 Barbee		Trout
2 Hall	RECEIVED	Wills
A. Olson	JAN 14 1969	Heckleman
Sample		3 Scott
Terpin	DESIGN DIVISION	R. Olson
Swenson		Carstensen

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

NOTED
P. B. Acommoier

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

OREGON STATE HIGHWAY DEPARTMENT

TO: H. Reynolds (County - City)

SUBJECT: FAS 506
US 30 - Baker - Copperfield Hwy
Baker Co.

FROM: J. A. Barbee (Design)
A.H. P.L. Carstensen

DATE: 12/31/68

The survey data for the above project has been examined and it has been found to be consistant with the project requested by the county and approved by the Hwy. Comm.

NOTED
HAROLD REYNOLDSON

NOTED
MANNOR C. HOLMES

cc: Ben Gifford.

Harold Reynolds
(SIGNATURE)

[redacted] HERE

NOTED
R. H. PRANGE

NOTED
P. B. Arensmeier

NOTED
RICHARD UNREIN

CC: _____ (SIGNATURE) _____ (DATE)

1. SENDER SHOULD DETACH SHEET NO. 4 AND HOLD UNTIL REPLY IS RECEIVED, LEAVING 1ST 2 CARBONS INTACT.
2. ADDRESSEE SHOULD REPLY, DETACHING SHEETS, RETAINING SHEET NO. 1 AND RETURNING SHEET NO. 3 TO SENDER.
3. SHEET NO. 2 MAY BE USED AS INFORMATIONAL CARBON COPY OR DESTROYED.

4

"CENTER OF OREGON'S ADVENTURELAND"

CITY OF BAKER OREGON

P. O. BOX 671
BAKER, OREGON 97814

Office: City Hall
Ph. 523-4437

December 27,1968

NOTED
H. S. COX

M & Dougall Lane
FAS 506
Baker County

RECEIVED
JAN 3 1969
ENGINEER
COUNTY & CITY DIVISION

Oregon State Highway Department
State Highway Building
Salem, Oregon

Att: Mr. Si Cox County-City Relations Eng.

Dear Si:

Base and Sub-base material for the F.A.S. McDougall Lane Construction Project is available to be purchased @ .20 per cubic yard, bank run from a tract of land containing 29.77 acres controlled by the Baker Redi-Mix lying in the W½ of the SW¼ (Tax Lot 1400) of Section 10, TWP 9S, R. 40 W.W.M.

This same material was used by the Freeway Contractor J.T. Parker east of Baker.

Very truly yours,

Durward L. Best

Durward L. Best, Roadmaster
Baker County Road Dept.

Vernon Z. Jacobson

Vernon Z. Jacobson
City Manager, City of Baker, Oregon

VZJ/be

Copy to- C.J. Gregg
C.G. Swenson
W. H. Semple

NOTED
HAROLD REYNOLDSON

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

"CENTER OF OREGON'S ADVENTURELAND"

CITY OF BAKER OREGON

P. O. BOX 671
BAKER, OREGON 97814

Office: City Hall
Ph. 523-4437

NOTED
H. S. COX

December 27,1968

McDougall Lane
FAS 506
Baker County

RECEIVED
JAN 3 1969
ENGINEER
COUNTY & CITY DIVISION

Oregon State Highway Department
State Highway Building
Salem, Oregon

Att: Mr. Si Cox County-City Relations Eng.

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Durward L. Best

Durward L. Best, Roadmaster
Baker County Road Dept.

Vernon Z. Jacobson

Vernon Z. Jacobson
City Manager, City of Baker, Oregon

VZJ/be

Copy to:- C. J. Gregg
C. G. Swanson
W. H. Sample

NOTED
HAROLD REYNOLDSON

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

RECEIVED
AUG 8 - 1968
FOR FILING

SU-124(6)
7299

8-5-68

Prefix No. 501-1419

LOCATION PROSPECTUS
U.S. 30-BAKER-COPPERFIELD HIGHWAY SECTION
FAS 506, McDOUGALL LANE
BAKER COUNTY

HIGHWAY: McDougall Lane County Road. Federal-aid Secondary No. 506.

TERMINI: Westerly end at the intersection of McDougall Lane with US 30 Highway. Easterly end at the intersection of McDougall Lane with the Baker-Copperfield Highway.

LENGTH: 1.25 miles.

PROGRAM: 1968 FAS Funds.

NARRATIVE: This will be a location survey to prepare plans, specifications and costs for furnishing and placing a stone base and oiling with an 0-11 oil mat. The route approximates the existing facility. Reconnaissance will not be necessary. Soils investigations will be conducted. Drainage and irrigation facilities will be handled by County forces. An economic analysis is not needed at this time.

TYPICAL SECTION: Two 12-foot travel lanes with 4-foot shoulders. To be oiled full 32 feet wide with 0-11.

ACCESS: No control of access.

BASE DESIGN: The tentative base design is:

Wearing Surface	1-1/4" 0-11
Top Course Base	2 " Leveling
Bottom Course Base	15 " Coarse material
Total Depth	18-1/4"

County to do the leveling and wearing surface.

MATERIAL SOURCES: Sources of suitable material will be located during time of survey and referenced to the project.

AGREEMENTS: An agreement with the County will be necessary. An opportunity for a public hearing will be offered.

UTILITIES: Utility adjustments will be made by the County.

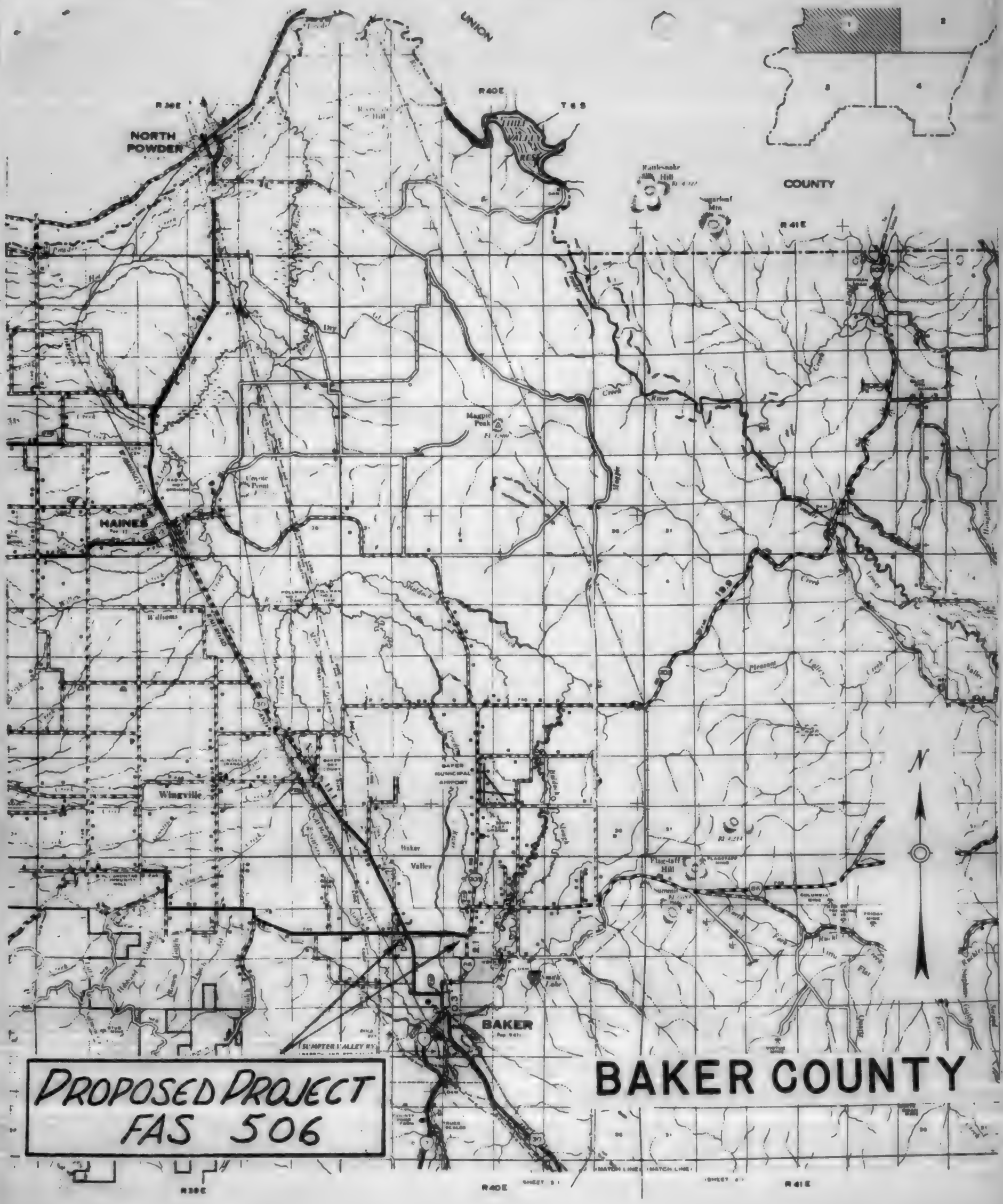
SOURCE NOT
USED

PARKS OR REST AREAS: None affected.

ADDITIONAL FACILITIES: No railroad, airports or major streams affected.

August 5, 1968
Attachment
cc: R. E. Simpson (3)
Forrest Cooper
F. B Klaboe
Victor D. Wolfe
Tom Edwards
F. D. Morgan
A. F. Parson (3)
Mark Astrup
J. M. Cartwright (2)
R. N. Chase
H. S. Cox (2)
F. B. Crandall
W. N. Hackleman
Frank Hall
B. S. Hunter
Val Johnson
Ivan Merchant (4)
D. H. Moehring (3)
A. D. Olson
James Owens
Jack Rowland
Robert Royer
W. H. Tebeau
O. C. Turner
F. W. Yarbrough (2)
L. H. Young

RECEIVED
AUG 7 1968
OFFICE OF
STATE HIGHWAY ENGINEER


UNION
COUNTY
NORTH POWDER
HAINES
Wingville
BAKER
Magpie Peak
Mt
Creek
River
Valley
Flat
Ridge
Hill
R39E
R40E
R41E
N
PROPOSED PROJECT
FAS 506
BAKER COUNTY

NOTED
H. S. COX

MEMO TO FILES: 6/10/68

US 30 to Baker-Copperfield Highway
McDougall Lane
FAS 506
Baker County
(Tab. 68-d)

Baker County has submitted a request revising the subject project as follows:

The contract will be for the clearing, grading, drainage and base for a roadway with a top width of 32 feet.

State is to do survey and make up options for additional right of way.

County will now do the leveling and wearing surface of an O-11 oil mat.

This project was approved by the Highway Commission on May 29, 1968.

NOTED
HAROLD REYNOLDSON

Harold Reynoldson
Planning Engineer
County and City Division

HR:eb

cc F. D. Morgan
J. E. Morelock
Ivan Merchant
F. W. Yarbrough
Ted Litchfield
C. G. Swenson
Roy Spivey
Ben Gifford
Carl Nelson
John Hanks
A. F. Parson, Div 5 Engineer

NOTED
P. B. Arenzneier

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

BAKER COUNTY
PROPOSED PROJECT (1968 Funds)

FAS 506, McDougall Lane: US 30 to Baker-Copperfield Highway Section.
Base, level, and oil; 1.25 miles - $100,000.

This project is to consist of basing, leveling, and oiling a roadway with a top width of 32 feet. Oiling is to be O-11 and to be 32 feet in width. Aggregates to come from a private source.

Public hearing is required.

County will do the grading and drainage, move utility poles, move and adjust irrigation facilities, and acquire additional right of way.

(See memo to files 4/10/68 re what County will do - revised)

68-d
5/20/68

HIWAY COMMISSION
APPROVED ON
MAY 29 1968

RECEIVED
JUN 10 1968
ENGINEER
COUNTY & CITY DIVISION

6-7-68

COUNTY ROAD FAS PROJECT DATA Sec. 8 - 9 T. 9 S., R. 40 E

1. Name of County Baker FAS No. 506

2. County Road Name Mc Dougall Lane

3. Section Name Between US 30 and (Baker-Copperfield) Highway ~~#86~~ Length 1.25

4. Type of Project Grading and base

5. Survey to be done by: State x County_____
(NOTE: If project is canceled, County must pay for survey.)

PROJECT DATA -

6. Has base design been given to County? Yes____ No x

Will it be furnished? Yes____ No x

7. Wearing Surface: Type 0-11 Width 24' Shoulders 4

8. Grading & Drainage:

By County____ County Date of Completion_____ By Contract x

9. Bottom Base Course:

By County____ County Date of Completion_____ By Contract x

10. Leveling Course:

By County x County Date of Completion_____ By Contract____

11. Wearing Surface:

By County x County Date of Completion_____ By Contract____

12. Clearing:

By County____ County Date of Completion_____ By Contract x

13. Is there any merchantable timber on right-of-way? Yes___ No x

14. Will timber be reserved for owner? Yes___ No___

15. Will timber become property of contractor? Yes___ No___

Remarks_____

MATERIAL SOURCE State tested pit run base available @.20 yd on an average 7.25 mile haul. - - - - - - - - - - - - - - - - -

16. Gravel x Quarry_____ Cinders_____

17. Owner: County_____ State_____ Private x

18. Location: _____ Section 10 Township 9S Range 40E. W.M.

CSR 61-8

19. Materials furnished by County: Borrow____ Select Topping____

Base Course____ Level Course X Mineral Aggregates X

20. Miscellaneous Items: _____

Remarks: Suggest subgrade match state highway and bridge grade.

FINANCIAL- -

21. Estimated Cost: $ 101,860.00

22. Available FAS Funds: $ 90,000.00

23. Date Match Money is Available: July 1, 1968

24. Will there be any 100% County Money? Yes X No____

25. Maximum Amount of 100% County Money Available: $_____

26. Date County Requests Letting: _____

Remarks 100% money item #24 on leveling course and oiling

RIGHT-OF-WAY- -

27. Is any additional right-of-way needed? Yes X No____

28. Will right-of-way be acquired by: Resolution____ or Deed X

29. Should State prepare options? Yes X No____

30. Should State prepare centerline descriptions for acquiring right-of-way by resolution? Yes____ No X

31. Should material source site be included in right-of-way descriptions? Yes____ No X

32. Does project run inside city? Yes X No____
(NOTE: If right-of-way is procured in community with post office or in a city, an opportunity for hearing must be afforded. [redacted].)

33. Are there any utilities (electric, water, gas, sewer, etc.) on private land? Yes____ No X
(NOTE: County must move all utilities located on present right-of-way.)

Remarks COUNTY WILL MOVE POLES

CLR 61-8

NONE

RAILROADS- -

34. Location: _____

35. Name of Railroad: _____

36. Number of tracks: _____

37. Sight distance: _____(Left) _____(Right)

38. Number of trains_____

39. Angle of intersection_____

40. Type of crossing: Grade____ Overcrossing____ Undercrossing____

41. Number of signs: Advance Warning_____ Crossbucks_____ Stop_____

Automatic Flashing_____ Automatic Bell_____ Gates_____

Remarks_____

STRUCTURES- -

42. Are there any structures to be replaced or altered? Yes____ No x

43. Will replacement by by: County_____ Contract_____
(NOTE: If by contract, fill out bridge questionnaire form.)

44. Will County adjust structure to new grade? Yes____ No____

45. Will County adjust structure to additional width? Yes____ No____

46. Will adjusted width be standard? Yes____ No____
(NOTE: Standard width of structure is 4 feet wider than wearing surface width. If structure is of substandard width, County must sign same to satisfaction of Bureau of Public Roads.)

Remarks_____

_____

47. Is project contingent upon other factors? Yes x No x

48. Such as: (a) Construction (Cooperative project by County, tie-in with outside projects)

Explain: City - County and irrigation district must move ditches and fences

_____

_____

_____

CLR 61-8

49. (b) Timing (Cooperative project by County, finance, irrigation, industrial usage, outside projects)

Explain: County and City must move irrigation ditches after irrigation season is over and acquire right of way and move poles

50. (c) Surveys (Coordination with outside surveys)

Explain: NONE

MISCELLANEOUS -

51. Does County wish rounding of cutbanks? Yes___ No X

52. Does County wish sight posts installed? Yes___ No x

53. Does County wish guard rail installed? Yes___ No x

54. Does County wish seeding and mulching incorporated into job?

Yes___ No X

NOTE: Approach fills for pile bent structures must be in place prior to bridge construction.

BAKER County

June 7, 1968 Date

By Lloyd Reh
Judge or Commission Chairman

By Howard L. Best
County Engineer

O.S.H.D. Field Engineer

Date

CCR 4-8

7921-201 King Rd. Section on 82nd Ave. 1969
(Cascade Highway) near Milwaukie
#7300 (Signals)

RECEIVED
JUL 23 1970
FOR FILING

7921-201
7310

July 23, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed May 15, 1970, on Contract No. 7300. The contract was with W. R. Grasle Company and was for traffic signal installation on the S. E. 82nd Avenue at King Road Section on the Cascade Highway in Clackamas County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective July 23, 1970, and that you concur in this procedure at the Commission meeting on August 18.

It is assumed that if you have no objections to this action and you do not advise us to the contrary, I may consider the matter has your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Quary
Tom Edwards
A. E. Johnson
V. D. Wolfe
I. D. Merchant
F. D. Morgan
L. H. Young
V. E. Skoog
L. W. Rulien

ms sr

RECEIVED
JUL 28 1970

7721-201
7300

July 23, 1970

General Insurance Co. of America
Portland Service Office
520 S. W. 6th Avenue
Portland, Oregon 97204

Gentlemen:

Contract No. 7300 awarded to W. R. Grasle Company for traffic signals on S. E. 82nd Avenue at S. E. King Road on the Cascade Highway in Clackamas County was completed on May 15, 1970, and accepted by the Highway Commission on July 23, 1970.

Final payment in the amount of $1,190.10 will be released to the contractor after July 30, 1970. The total contract amount is $22,517.60 including $67.60 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

ses

cc W. R. Grasle Company
437 N. W. 16th Avenue
Portland, Oregon 97209

bcc Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
L. W. Rullen

7921-201
7300

FORM E-1 (REV. 12-64)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: S. E. 82nd at King Road		WEEK ENDING: May 9, 1970
		SECTION PREFIX: 7921
HIGHWAY: Cascade		COUNTY: Clackamas
NAME OF JOB: S. E. 82nd at King Road	KIND OF WORK: Traffic Signal Installation	
CONTRACTOR: W. R. Grasle Co.	CONTRACT NUMBER: 7300	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: September 2, 1969	DATE WORK STARTED: October 13, 1969	ESTIMATED COMPLETION DATE: May 15, 1970
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 1 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 240	CALENDAR DAYS USED 233
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED 97
PROJECT AUTHORIZATION: $ 25,934.25	ENGINEERING AUTHORIZATION $ 2,265.00	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST 97
EXCLUSIVE OF ENGINEERING: $ 23,669.25	ENGINEERING COST TO DATE $ 2,300.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION 98
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 23,650.00		DATE PROJECT WAS COMPLETED:
ESTIMATED PERCENT: OVERRUN / UNDERRUN 0 %	PERCENT OF AUTHORIZATION 100 %	

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

1 Dump Truck

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.	Signals							
PERCENT	97							

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
5-3 SUNDAY	Sunny, Calm	1		
5-4 MONDAY	Sunny, Warm	1		
5-5 TUESDAY	Cloudy, Warm	1		
5-6 WEDNESDAY	Sunny, Warm	1		
5-7 THURSDAY	Fly Cldy, Warm	1		
5-8 FRIDAY	Rain	1		
5-9 SATURDAY		1		

Routing: Morgan, Peart, Docker, Swan, Bond, Walker, Litchfield, Bachman, Gardner, Johnson

RECEIVED
MAY 13 1970
CONSTRUCTION DIVISION

RECEIVED
MAY 11 1970
BRIDGE DIVISION

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

5-3 SUNDAY	No Activity
5-4 MONDAY	No Activity
5-5 TUESDAY	No Activity
5-6 WEDNESDAY	No Activity
5-7 THURSDAY	No Activity
5-8 FRIDAY	Removed existing controller pole in S. W. corner
SATURDAY	No Activity Planned

REMARKS

Status

Traffic signals & new controller in operation.

Minor corrective work & cleanup remains to be done.

SIGNED E. Rodriguez LOCATION Aloha

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 4 COPIES.

SP-F216

DEPARTMENT
DEC 26 1969
FOR FILING
7721-207
7302
TOM McCALL
GOVERNOR

4028

OFFICE OF THE GOVERNOR
STATE CAPITOL
SALEM 97310

December 18, 1969

Mr. Harold F. Juedes, Secretary
Southgate Community Council
7400 S. E. Thompson Road
Milwaukie, Oregon 97222

Dear Mr. Juedes:

This is in reply to a copy of your letter addressed to the Highway Commission.

The Highway Division tells me that the traffic light recently installed at 82nd Avenue and King Road is activated by a temporary-type controller. A traffic-actuated timer will be installed just as soon as it is received from the factory.

*The other problem you mentioned--the matter of left-turning from King Road to 82nd Avenue, will in all probability continue to remain in the same category and classification as any other left turn at a street intersection. The traffic movements at this intersection currently do not warrant, when measured by national standards, the installation of left-turn refuges and a three-phase operation.

*I think I should add that King Road is under the jurisdiction of Clackamas County. Speed zoning and pedestrian protection at the 76th Street intersection are matters you should discuss with the Board of County Commissioners of Clackamas County.

The best of the holidays to you and yours.

Sincerely,

Tom

Governor

TM:ma

bcc: John Fulton
✓Forrest Cooper

NOTED
FORREST COOPER

COPY

RECEIVED
DEC 26 1969
OFFICE OF
STATE HIGHWAY ENGINEER

* Slight changes in draft
TM

SOUTHGATE COMMUNITY COUNCIL

9606

7400 S. E. Thompson Road
Milwaukie, Oregon 97222
Telephone- 654-6005

REFERRED TO Admin BY SECRETARY

Conrad Walth
Bert Garner
Hazel Jette

Board of Directors
Chairman- Joe Monaco
Vice-Chairman- Erroll Stephens
Secretary-Treasurer- Harold F. Juedes

George Fuson
Jon Petersen
Robert Rulifson

November 25, 1969

REFERRED TO Edwards BY DEPUTY STATE HIGHWAY ENGINEER

State Highway Commission
Salem, Oregon

Dear Sir:

The Southgate Community Council is concerned about the following:

1. The signal lights at 82nd avenue and King Road traffic coming from the West meets traffic head on coming out of Villa Mart. That is, cars coming from West off King Road and turning North, meet two lanes of cars coming out of Villa Mart. Couldn't these lights be alternated? Is this set up permanent ? If it is, it sure is a poor one. One of these days, someone will get killed there. In planning the lives of people should be taken in consideration.

2. Now that King Road is made into a 4-lane highway how do you expect boys and girls and adults for that matter to cross King Road at both 74th street and 76th street ? Children attending the Lot Whitcomb School have no safe place to cross. Something needs to be done here. Perhaps a cross walk in between these two areas with appropriate signs showing and also the speed on King Road reduced and appropriate signs posted and enforced would help.

We can assure you that we, the Board of Directors of the Southgate Community Council, are not going to sit idly by when the lives of boys and girls and adults are at stake. It appears to us that poor planning has taken place in both matters mentioned here.

We believe the owners of Villa Mart should show a little more concern in these matters, especially when the lives of people are at stake. After all they were the cause of these situations being brought about. A little more concern for the lives of people and not so much as to how much money they can make.

We would be happy to sit down across the table with a representative or representatives from the Highway Commission and Villa Mart, perhaps the Governor or his representative, and work out these problems with you.

Thank you for your consideration in this matter.

Very truly yours,
Harold F. Juedes
Board of Directors
By Harold F. Juedes, Secretary

C.C. Governor Tom McCall
Clackamas County Commissioners
Villa Mart

RECEIVED
NOV 28 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 8 - 1969
FOR FILING

7921-201

7300

September 8, 1969

W. R. Grasle Co.
437 N.W. 16th Avenue
Portland, Oregon 97209

Gentlemen:

Enclosed are three copies of Contract No. 7300 for $22,450 executed by the State Highway Commission on September 2, 1969. This contract is for traffic signals on S.E. 82nd Avenue at S.E. King Road on the Cascade Highway in Clackamas County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar day count on this contract will begin September 19, 1969.

Very truly yours,

Floyd Ousy, Secretary
OREGON STATE HIGHWAY COMMISSION

er
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Marchant
William Geibel (SAIF)
L. W. Malien
Enrique Rodriquez

304-1704 Cannon Beach (2nd St.) Section 1969
(Grading and paving)

#7301

OKA 3613

OREGON STATE HIGHWAY DEPARTMENT

FORM A-150 (3-64)

HIGHWAY DEPARTMENT INVOICE

NO. 101732

DATE	BILLING REQ. NO.	YOUR ORDER NO.	CREDIT DISTRIBUTION
4-4-0	CC 1214		304-1704-795 $2,774.00

NOTED
H. S. COX

City of Cannon Beach
City Hall
Cannon Beach, Oregon 97110

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DEPARTMENT

SEND REMITTANCE TO:
OREGON STATE HIGHWAY DEPARTMENT
STATE HIGHWAY BUILDING
SALEM, OREGON 97310

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Attention: Mrs. Fae McCoy, Recorder			
Final Billing: Special City Allotment Project on Second Street. Contract No. 7301. Covered by agreement dated 9-6-69.			
City's Advance Deposit			$ 2,910.00
As per attached statement:			
Final Cost		$3,184.64	
State's agreed share		$2,460.64	
City's agreed share			$ 2,774.00
To be refunded			186.00

RECEIVED
APR - 6 1970
ENGINEER
COUNTY & CITY DIVISION

ACKNOWLEDGMENT OF BILLING REQUEST

Cash Received with Request: $_____

By_____

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

OREGON STATE HIGHWAY DEPARTMENT

CONTRACT PAYMENT VOUCHER

FORM A-20 (REV. 6-63)

COUNTY	CONTRACT NO.	ESTIMATE NO.
CLATSOP	7301	4 Post
HIGHWAY CITY STREET	**FEDERAL AID PROJECT NO.**	
SECTION CANNON BEACH (2ND ST)		

NO.	ITEMS	UNITS	UNIT PRICE	QUANTITY TO DATE
001	9N GENERAL EXCAVATION	LUMP SUM	3000.0000	100.000
002	9N 1IN-0 MATERIAL IN BASE 11-1/2 THICK	SQ YDS	2.6500	1,915.750
003	9N CLASS B ASPHALT CONCRETE 3-INCHES THICK	SQ YDS	2.5000	2,244.750
004	9N 12-INCH STORM SEWER PIPE	LIN FT	5.6000	562.000
005	9N CONCRETE INLETS TYPE CG-1	ONLY	200.0000	5.000
006	9N ADJUSTING MANHOLES	ONLY	25.0000	2.000
007	9N CONCRETE CURBS	LIN FT	3.0000	908.000
008	9N AC CONC STREET CONNECTIONS	ONLY	50.0000	6.000
	PRICE AGREEMENT ITEMS			
30101	9N CONSTR APPRCHES	LUMP SUM	460.0000	100.000
	ADJUSTMENT ITEMS			
6001	N LIQUIDATED DAMAGES	DAY	30.0000-	32.000
6001A	N LIQU DAM TIME EXT COMM ACT 3-17-70	DAY	30.0000	13.000

DATE 03 26 70 PG. 01 7301	TOTAL CONTRACT ITEMS
PREVIOUS VOUCHER NO. 24327	% RETAIND ON CONTRACT ITEMS
CHECKED BY: AW/de	FORCE ACCOUNT
ENGINEER OR AUDITOR V. E. Shull	TOTAL PAYMENTS

	CONTRACT NO.	ESTIMATE NO.	PREFIX NO'S.
UP	7301	4 Post Final	
EET	FEDERAL AID PROJECT NO.		304 1704 203 (640) 390.00 Dr.
EACH (2ND ST)			

	UNITS	UNIT PRICE	QUANTITY TO DATE	AMOUNT TO DATE	PREVIOUS AMOUNT	PRESENT AMOUN
	LUMP SUM	3000.0000	100.000	3000.00	3000.00	
ICK	SQ YDS	2.6500	1,915.750	5076.74	5076.74	
THICK	SQ YDS	2.5000	2,244.750	5611.88	5611.88	
	LIN FT	5.6000	562.000	3147.20	3147.20	
	ONLY	200.0000	5.000	1000.00	1000.00	
	ONLY	25.0000	2.000	50.00	50.00	
	LIN FT	3.0000	908.000	2724.00	2724.00	
NS	ONLY	50.0000	6.000	300.00	300.00	
	LUMP SUM	460.0000	100.000	460.00	460.00	
	DAY	30.0000-	32.000	960.00-	960.00-	
-70	DAY	30.0000	13.000	390.00		390.
	TOTAL CONTRACT ITEMS			20799.82	20409.82	390.
	% RETAIND ON CONTRACT ITEMS					
	FORCE ACCOUNT					
	TOTAL PAYMENTS			20,799.82	20,409.82	390.00

OREGON STATE HIGHWAY DEPARTMENT 03/20/70 PROGRESS ESTIMAT

SECTION CANNON BEACH (2ND S

HIGHWAY CITY STREET

TYPE WORK GRADING AND PAVING

COUNTY TSOP

SPECIFIED COMPLETION A) 30 CND
B)
C)

CONTRACTOR PALMBERG PAVING COMPANY INC
SEASIDE 97138

AWARDED 09

EXTENSION 13

ITEM NO.	ITEM NAME / UNIT	UNIT PRICE	ORIGINAL AUTHORIZATION QUANTITY	ORIGINAL AUTHORIZATION AMOUNT	CORRECTED ESTIMATE QUANTITY	CORRECTED ESTIMATE AMOUNT
001	GENERAL EXCAVATION LUMP SUM	30000000	100000	300000	100000	300000
002	11N-0 MATERIAL IN BASE 11-1/2 THICK SQ YDS	26500	2530000	670450	1915750	507674
003	CLASS B ASPHALT CONCRETE 3-INCHES THICK SQ YDS	25000	2400000	600000	2244750	561188
004	12-INCH STORM SEWER PIPE LIN FT	56000	490000	274400	562000	314720
005	CONCRETE INLETS TYPE CG-1 ONLY	2000000	4000	80000	5000	100000
006	ADJUSTING MANHOLES ONLY	250000	2000	5000	2000	5000
007	CONCRETE CURBS LIN FT	30000	970000	291000	908000	272400
008	AC CONC STREET CONNECTIONS ONLY	500000	4000	20000	6000	30000
	TOTALS FOR ORIG. CONTRACT			2240850		2090982
	PRICE AGREEMENTS					
30101	CONSTR APPRCHES LUMP SUM	4600000			100000	46000

0/70 PROGRESS ESTIMATE AND COST REPORT PAGE NO. 01 FORM E-498 (R

SCP AWARDED 09 15 69 F.A.P. CONTRACT NO. 7301 WORK DONE TO:
A) 30 CWD
LETION B) EXTENSION 13 CWD APPROVED 03-17-70 PREFIX 304 1704
C) A) 62 CWD ESTIMATED DATE
PALMBERG PAVING COMPANY INC USED B) ESTIMATE NO 004 OF COMPLETION.
SEASIDE 97138 C) POST FINAL

RIZATION	CORRECTED ESTIMATE		PERFORMED TO DATE 11/26/69		TO COMPLETE 11/26/69		GROUP POR Z	NEW TOTAL TO D	
MOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT		QUANTITY	AMC
300000	100000	300000	100000	300000			9N		
670450	1915750	507674	1915750	507674			9N		
600000	2244750	561188	2244750	561188			9N		
274400	562000	314720	562000	314720			9N		
80000	5000	100000	5000	100000			9N		
5000	2000	5000	2000	5000			9N		
1291000	908000	272400	908000	272400			9N		
20000	6000	30000	6000	30000			9N		
2240850		2090982		2090982					
	100000	46000	100000	46000			9N		

OREGON STATE HIGHWAY DEPARTMENT 03/20/70 PROGRESS ESTIMAT

SECTION CANNON BEACH (2ND ST
HIGHWAY CITY STREET
TYPE WORK GRADING AND PAVING

COUNTY CLATSOP
SPECIFIED COMPLETION A) 30 CWD B) C)
CONTRACTOR PALMBERG PAVING COMPANY INC SEASIDE 97138

AWARDED 09
EXTENSION 13 C

ITEM NO.	ITEM NAME / UNIT	UNIT PRICE	ORIGINAL AUTHORIZATION QUANTITY	ORIGINAL AUTHORIZATION AMOUNT	CORRECTED ESTIMATE QUANTITY	CORRECTED ESTIMATE AMOUNT
	ADJUSTMENTS					
6001	LIQUIDATED DAMAGES DAY	-300000			32000	-96000
6001A	LIQU DAM TIME EXT COMM ACT 3-17-70 DAY	300000			13000	39000
	FORCE ACCOUNTS					
801	FLAGGING 94001					
	* TOTAL PAY COSTS			2240850		2079982
	ADD. ANTICIP. ITEMS					
94001	FLAGGING EM1			10000		
98999	CONTINGENCIES			101288		
99999	ENGINEERING			225085		240018
	GRAND TOTALS			2577223		2320000

RESIDENT ENGINEER _____ DATE _____ DI

PROGRESS ESTIMATE AND COST REPORT

PAGE NO. 02 FORM E-456 (REV. 5-68)

CHD

AWARDED 09 15 69 F.A.P.

CONTRACT NO. 7301

WORK DONE TO:

EXTENSION 13 CHD

APPROVED 03-17-70

A) 62 CHD

PREFIX 304 1704

ESTIMATED DATE OF COMPLETION:

PAVING COMPANY INC
97138

USED B)

C)

ESTIMATE NO. 004

POST FINAL

CORRECTED ESTIMATE		PERFORMED TO DATE		TO COMPLETE		GROUP PORN	NEW TOTAL TO DATE	
QUANTITY	AMOUNT	QUANTITY	AMOUNT 11/26/69	QUANTITY	AMOUNT 11/26/69		QUANTITY	AMOUNT
32000	-96000	32000	-96000			N		
13000	39000	13000	39000			N		
						9N		
	2079982		2079982					
						9N		
	240018		237236		2782			
	2320000		2317218		2782			

DATE DIVISION ENGINEER

RECEIVED
MAR 25 1970
FOR FILING

304-1704
7201

March 25, 1970

Rathbone, King & Seeley
310 S. W. 4th Street
Portland, Oregon 97204

Gentlemen:

A post-final payment for $350 will be made to Pulsberg Paving Co., Inc., on Contract No. 7201 for grading and paving on Second Street in Cannon Beach in Clatsop County as soon as the warrant is prepared.

The total amount paid on this contract will be $20,799.82 including the post-final payment. No force account work was performed on this contract.

Very truly yours,

Floyd Usery, Secretary
OREGON STATE HIGHWAY COMMISSION

fhn

cc Pulsberg Paving Co., Inc.
P. O. Box 807
Seaside, Oregon 97138

Martin Knutsen & Son
375 12th Street,
Astoria, Oregon 97103

Frank Morgan
Ivan Merchant
V. L. Skoog
Attn: John Herr
R. D. Asbury

RECEIVED
APR 14 1970
FOR FILING

304-1704
Y301

March 18, 1970

#2

Palmberg Paving Company, Inc.
P. O. Box 807
Seaside, Oregon 97138

Gentlemen:

The State Highway Commission at its meeting on March 17, 1970, considered your request for a 37½-day time extension on Contract No. 7301 for grading and paving Second Street in Cannon Beach in Clatsop County.

Careful consideration was given to the reasons you submitted. However, in light of the available facts and the provisions of the contract, the Commission granted you an extension of 13 days without assessment of liquidated damages.

If there are pertinent facts which have not yet been considered, you should contact the Resident Engineer, the Division Engineer, or the Construction Engineer in the Salem Office.

Very truly yours,

Floyd Cleary, Secretary
OREGON STATE HIGHWAY COMMISSION

or

bc: F. D. Morgan
V. E. Skoog
R. D. Asburry
Vern Shull

E—220 (Rev.)—8M—5-69

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date 1/ 14, 19 70

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 30 days to 62 days, within which to complete our Contract No. 7301, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

Per attached schedule

Respectfully submitted,

Palmberg Paving Co., Inc.,
Contractor

By W. Clay Palmberg
W. Clay Palmberg - Pres.

CONSENT OF SURETY

Date January 14, 19 70

We, PEERLESS INSURANCE COMPANY

, as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Eugene Knutsen
Eugene Knutsen, Attorney-in-fact
MARTIN KNUTSEN & SON, INC.
By Eugene Knutsen
Resident Agent

(SEAL)

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7301 Contractor Palmberg Paving Co., Inc.

Highway City Street

Section Cannon Beach (2nd St.)

Kind of Work Grading and Paving

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED**. The reasons for such recommendation are as follows:

Recommend 13 days extension for water line adjustment (2), pave approaches and add drainage (4), late paving interruption by rain (1) and cooperation in no Saturday work (6).

Recommended for Approval:

R. D. Asburry
Division Engineer

for Construction Engineer or Bridge Engineer

Approved
State Highway Engineer

Contract No.	
Project designation	State-Federal
Date awarded	
Work started	
Per cent completed	Date
No. of Workdays Allowed	
No. of Workdays Used	
No. of Added Workdays Requested	

State Printing 37038

DIS MTP DOC
FEB 9 - 1970
FOR FILING
304 - 1704
7211

February 9, 1970

Oregon State Highway Commission

Request for Extension of Time
No. 1
March 17, 1970 meeting

Gentlemen:

Palmberg Paving Company, Inc., contractor on the Cannon Beach (2nd Street) Section, Contract No. 7201, in Clatsop County, has requested a 37 1/2-day time extension. The contractor cites a specification definition of days charged, delay in pipe delivery, utility relocation, conflict, high water, quantity overruns, weather, and his cooperation with local interests not working on weekends.

Relocation of a water line in the project area interfered with the contractor's work for two days and extension for this time is justified. Additional paving of approaches and additional drainage work at an intersection on one end of the project justifies four days. The contractor did comply with the wishes of City officials and local business interests by not working on weekends. It would have been reasonable to expect to work on Saturdays on a project which allowed only 30 days for completion. Extension for six Saturdays during the actual life of the project, or six days, is therefore recommended. The above reasons extend the time on into poorer weather in November, and one additional day is recommended to allow for a day late in the project when rain prohibited paving.

No time is recommended on the other reasons. The definition of the contract time is clearly covered in the Special Provisions and the availability of pipe could presumably have been determined by the contractor prior to bidding, as could the possibility of water interference at the elevation of the project area.

This project was completed November 26, 1969, with 32 days liquidated damages accrued. I recommend an extension of 13 days which will leave 19 days liquidated damages in effect for a total of $570. This was a Special City Allotment State project.

This matter will be on the agenda for your consideration at the March 17 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
F. D. Morgan
V. E. Skoog
R. D. Asburry

JAB:fw fn

E-320 (Rev.)—SM—8-69

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date 1/ 14, 1970

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 30 days to 62 days, within which to complete our Contract No. 7301, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

Per attached schedule

Respectfully submitted,

Palmberg Paving Co., Inc.,
Contractor

By W. Clay Palmberg - Pres.

CONSENT OF SURETY

Date January 14, 19 70

We, PEERLESS INSURANCE COMPANY, as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Eugene Eustace
Attorney-in-fact

(SEAL)

MARTIN EUSTACE & SON, INC.
By Eugene Eustace
Resident Agent

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7301 Contractor Dalaberg Paving Co., Inc.

Highway City Street

Section Cannon Beach (2nd St.)

Kind of Work Grading and Pav ng

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED.** The reasons for such recommendation are as follows:

Recommend 13 days extension for water line adjustment (2), pave approaches and add drainage (4), late paving interruption by rain (1) and cooperation in no Saturday work (6).

Recommended for Approval:

R. D. Asberry
Division Engineer

Construction Engineer or Bridge Engineer

Assistant State Highway Engineer

Contract No.	
Project designation	State-Federal
Date awarded	
Work started	
Per cent completed	Date
No. of Workdays Allowed	
No. of Workdays Used	
No. of Added Workdays Requested	

State Printing 2765

FORM E-50 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
February 3, 1970

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

SUBJECT: Cannon Beach (2nd Street) Section
Contract No. 7301
Request for Time Extension

Palmberg Paving Company requests a 37-1/2 day time extension because of their misinterpretation of the definition of the workdays, delay in pipe delivery, utility relocation delay, high water, rain delay to paving, quantity overruns and their cooperation with local interests in not working on weekends.

This was a small two-block special city allotment improvement on which bids were opened August 28, 1969. Thirty (30) calendar workdays were allowed as at about that time it was decided to deliberately hold these smallest projects to a very minimum amount of time. The time of year that bids were called dictated a short completion time too. The 30 days allowed expired October 25 and the project was not completed until November 26 or with 32 days liquidated damages accrued at $30 per day. The contract work actually underran almost 7 percent. The engineering cost did not overrun but just about used the amount authorized.

Relocation of a water line interfered with the contractor's work for 2 days. An extension in this amount is recommended.

A price agreement added paving of four approaches and justifies 1 day extension.

At the City's request, the street intersection at the extreme west end of the project was paved and drainage added. We believe in the perspective of the size of the project and the minimum time allowed that this added work justifies 3 days extension.

An unusual factor that came to light on this job concerns weekend work. Of course, under the calendar workday time, all seven days of a week are counted.

The business people in the vicinity of the project and City officials did not wish the contractor to work on weekends due to possible interference with tourist business. No stop work orders were issued and there wem no special provisions on this point. We believe it would be fair to grant some time for the Saturdays only on which no work was done and that occurred immediately after work had been in progress during a week. This would involve 6 days and extension for this time is recommended.

The above reasons helped carry the project completion on into poorer weather, so we would recommend extension for the 1 day near the end of the project when the paving was delayed because of rain.

The alleged delay in acquisition of pipe is not substantiated. One must assume that in bidding a project with such a short completion time, probable delivery time on materials could be taken into account. Probable water level in the trenches could also be anticipated since the plans show this project to be down to elevation 10 or less.

The extensions recommended above total to 13 days. This would leave 19 days liquidated damages in effect at the rate of $30 per day or $570 total. This was a State project. A rough draft letter to the Highway Commission is enclosed.

F. D. Morgan
Construction Engineer

By John A. Bond
John A. Bond
Construction Administration Engineer

JAB:fw
Attach.
cc V. L. Gallagher

RECEIVED
FEB 5 1970
OFFICE OF
STATE HIGHWAY ENGINEER

PALMBERG PAVING CO., INC.
P. O. Box 807
SEASIDE, OREGON 97138

1/13/70

Oregon State Highway Dep't.,
Salem, Oregon

Recap - Contractors request for additional working days
Per Contract # 7301

		Days
(1)	We have been penalized 32 days and request relief of 18 days due to our interpretation of the contract as follows: Our contract specifies Callender Workdays and not callender days which excludes Sat. & Sundays. (Per Sec. 8-7 page 58 - Standard specs. 1964) (Sat. & Sundays 9/27/69 to 11/26/69 Incl.)	18
(2)	Delay in delivery of special Corr. Steel Pipe. Armco only supplier and could not get delivery until 10/10/69. Loss 9 days. Also quantity increased after initial order from 440' to 600'	9
(3)	Had to wait for Public Utility to remove water line. ½ day 10/30, 1 day 10/31, 1 day 11/3.	2½
(4)	Water level too high. Could not work 2 days - 11/4 & 5.	2
(5)	Too wet to pave (per inspector) 1 day - 11/20/69	1
(6)	Increase in scope of job. Rock & Pave approaches (Letter 10/1/69) Grade & Pave west intersection. Lay 160' pipe and additional catchbasin.	5
	Total additional days requested	37½

PS - Due to noise and construction activity we were discouraged to work on Saturday or Sundays by the Motel owners because it would interfere with their weekend business.

Palmberg Paving Co., Inc.,

W. Clay Palmberg

W. Clay Palmberg - ~~Pres.~~

738-5123

RECEIVED
FEB 2 - 1970
FOR FILING

304-1704

7301

February 2, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed November 26, 1969, on Contract No. 7301. The contract was with Palmberg Paving Company and was for grading and paving on the Common Beach (1nd Street) Section in Clatsop County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective as of this date.

This matter will be on the agenda for confirmation at the February 3 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
V. E. Skoog
F. D. Morgan
L. H. Young
R. D. Asburry

srb fn

RECEIVED
FEB 3 - 1970
FOR FILING

304-1704
7301

February 2, 1970

Mathews, King & Seeley
Board of Trade Building
Portland, Oregon 97204

Gentlemen:

Contract No. 7301 awarded to Palmberg Paving Co., Inc., for grading and paving in the city of Cannon Beach on 2nd Street in Clatsop County was completed on November 26, 1969, and accepted by the Highway Commission on February 2, 1970.

Final payment in the amount of $1,120.43 will be released to the contractor after February 9, 1970. The total contract amount is $20,409.82 and no work was performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd [illegible], Secretary
OREGON STATE HIGHWAY COMMISSION

cc

cc: Palmberg Paving Co., Inc.
Martin Emerson & Son
Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
R. D. Asburry

NOTED ON CARD
2-2-70 cR

304-1704
7301

C

FORM E-1 (REV. 12-64)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Cannon Beach (2nd St.)		WEEK ENDING: Dec.6,1969
		SECTION PREFIX: 304-1704
HIGHWAY: City Street		COUNTY: Clatsop
NAME OF JOB: Cannon Beach (2nd St.)	KIND OF WORK: Grading & Paving	
CONTRACTOR: Palmberg Paving Co.,Inc.	CONTRACT NUMBER: 7301	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: Sept.15,1969	DATE WORK STARTED: Oct.10,1969	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS: CWD	WORK DAYS USED:
	SPECIFIED CALENDAR DAYS: 30	CALENDAR DAYS USED: 62
	SPECIFIED COMPLETION DATE:	PERCENT OF TIME ELAPSED: 206.7
PROJECT AUTHORIZATION: $ 25,772.23	ENGINEERING AUTHORIZATION: $ 2,250.83	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $ 23,521.38	ENGINEERING COST TO DATE: $ 2,220.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION:
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 20,410.67		DATE PROJECT WAS COMPLETED: Nov.26,1969
ESTIMATED PERCENT: ~~AVERAGE~~ UNDERRUN 8.7 %	PERCENT OF AUTHORIZATION 99 %	

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
	100	100	100	100			

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	0.10	0.10			0.10
MILES PARTIALLY COMPLETED					
MILES COMPLETED	0.10	0.10			0.10
TOTAL ESTIMATED QUANTITIES (CONTRACT)		2,530 sq yd			2,400 sq yd
TOTAL QUANTITIES CORRECTED TO DATE		1,916			2,245
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE		1,916			2,245
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY				
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

Routing

Morgan — Pease
Decker — Swan
Bond — Glenn
Walker — Litchfield
Bouhme — Gallagher
Johnsen — Stein

RECEIVED
DEC 8 1969
CONSTRUCTION DIVISION

BEN GIFFORD

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

Mayor Gower and Mr.Hobart representing the City of Cannon Beach ;; Mr. Asburry [redacted] and Mr. Wimer representing the Highway Division made final inspection Thursday.

Semi-Final sent to [redacted] Division Office Friday.

This is the final report.

Vernon E. Shull
by:
SIGNED Charles W. Edney LOCATION Seaside

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

BP°F216

7301

pca-69

OREGON STATE HIGHWAY DEPARTMENT
PROJECT INSPECTION AND DIVISION INSPECTION REPORT

Project Name Second Street (Cannon Beach) Contract No. 7301

Highway City Street Prefix No. 304-1704

County Clatsop F.A. No. State

Final inspection made on 12-4-69 By Gerald Wimer

in company with R. D. Asburry, Vern Shull, Chuck Elroy, Mayor Gower, and Councilman Hobart

CHECK LIST

Date		Date	
11-26-69	Construction signs removed	11-26-69	Opened to traffic.
was none	Salem office notified to rescind construction speed zone.	with semi-final	Division materials certification submitted.
11-26-69	Contractor removed equipment from project.		
11-26-69	Roadside cleanup completed.		

RECEIVED
DEC 9 1969
ENGINEER
COUNTY & CITY DIVISION

REMARKS: (Appearance and riding quality of job, general quality of workmanship, etc.)

Good pavement texture and project. City quite happy. They will follow-up with letter.

NOTED
H. S. COX

All contract work on this project has been completed and recommendation is made for acceptance on 11-26-69. The semi-final estimate will be submitted about 12-11-69.

cc: Construction Engineer - F. D. Morgan
Division Engineer - R. D. Asburry
~~Maintenance Engineer - E. S. Hunter~~
~~Bridge Engineer - Ivan D. Marchant~~
Traffic Engineer - F. B. Crandall
County-City Engineer - H. S. Cox ✓
Resident Engineer - Vern Shull
District Maintenance Supt. - Dick Hawkins

Copies sent to all named _____.

NOTED
P. B. Arseneaux

Noted
Oscar H. Norberg

(signed) _____ Asst. Div. Engr.
(title) NOTED
DON HARWELL

lf

September 15, 1969

Mrs. Mae McCoy
City Recorder
City Hall
Cannon Beach, Oregon 97110

Dear Mrs. McCoy:

This is to acknowledge receipt of the City's check no. 4059 in the amount of $2,910.00 as payment on the Special City Allotment project on Second Street. This project is now clear for award of contract.

Your cooperation in this matter is appreciated, and if there are any questions, please let us know.

Very truly yours,

H. S. Cox
County and City Engineer

By
Oscar H. Norberg

Oscar H. Norberg
Field Engineer

OHN:rm

bc: L. H. Young
F. D. Morgan
V. E. Skoog, attention John Kerr: Check #4059 delivered to
9/15/69

NOTED
P. B. Accounting

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

RECEIVED
NOV 1 - 1969
FOR FILING

304-1704
7301

September 15, 1969

Bid Aug 28

Palmberg Paving Co., Inc.
P. O. Box 807
Seaside, Oregon 97138

Gentlemen:

The State Highway Commission on September 2, 1969, accepted your proposal for grading and paving on 2nd Street in the city of Cannon Beach in Clatsop County for the sum of $22,408.50 and referred it to the State Highway Engineer with authority to award the contract as soon as approval of the City of Cannon Beach was received and the sum of $2,910.00 was deposited by the City.

These conditions were fulfilled and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7301.

Your proposal was received including Item No. 9, Concrete Driveways, for a total amount of $900 and Item No. 10, Concrete Walks, for a total amount of $360. You have been contacted previously by phone by Mr. L. H. Young concerning removal of Bid Items Nos. 9 and 10, and the contract has been prepared using Bid Items Nos. 1 through 8.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar workday count on this contract will begin September 26, 1969.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bcc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Geibel (SAIF)
R. D. Asburry
Vernon Shull

7301

NOTED
H. S. COX

Salem, Oregon
March 28, 1969

Mr. D. J. Barbee
Design Engineer

BUILDING

Attention Mr. P. L. Carstensen

1969 Special City Allotment Project
Second Street
City of Cannon Beach

NOTED
H. S. COX

The survey data on subject project has been examined and found to be consistent with the project as requested by the City and approved by the Highway Commission.

NOTED
RICHARD UNREIN

Richard Unrein
Field Engineer
County and City Division

RU:eb

Att.

4-1-69 called Recorder and told her project would be placed on Aug 21 bid opening with construction on or after Sept. 8. JLL

NOTED
DON HARWELL

NARRATIVE REPORT
CANNON BEACH (SECOND STREET) SECTION
CITY STREET - CLATSOP COUNTY

The project calls for the reconstruction of Second Street between Larch Street and Spruce Street with a 40-foot curb to curb section.

The existing inadequate system is to be replaced with storm sewer installation. The existing concrete sidewalks are not uniform and are at variance with the proposed top of curb grade this was discussed by the City and Field Engineer Unrein, the City approved the grade , it was decided to remove the none-uniform side walk under the contract and the replacement be made by others.

The pavement slopes as per the typical section are necessary to fit ground surface and drainage conditions.

We have omitted item for watering, the cost of watering is included in the estimated cost for general excavation and stone base. The special provisions should require the stone base to be wetted before placement to protect the subgrade and prevent material segregation.

The square yard is specified as a basis for measurement for the stone base and asphaltic concrete items, this with the elimination of a separate item for watering will eliminate the need for material checkers and a man on the weigh scales.

The City advised they will furnish a letter authorizing closure of second street to other than residential access.

Arthur Duffy
Resident Engineer.

SECTION Second Street

HIGHWAY Cannon Beach - City Street

ESTIMATE OF COST

3/21/69

SHEET 1 OF

NO.	ITEM	UNIT	NET	ALLOW.	GROSS	UNIT COST	TOTAL COST
1.	Temp. Protection & Direction of Traffic	All	All		All	$	$ 500 00
2.	Clearing and Grubbing	All	All		All		500 00
3.	General Excavation, Unclassified	Cu.Yd.	860	90	950	1 75	1,662 50
4.	Trench Excavation	Cu.Yd.	58	7	65	4 00	260 00
5.	Stone Base	Sq.Yd.	2,133	167	2,300	1 55	3,565 00
6.	Class 'B' Asphalt Concrete	Sq.Yd.	2,088	187	2,275	2 50	5,687 50
7.	12 inch Reinf. Conc. Storm Sew. Pipe	Lin.Ft.	444	36	480	3 75	1,800 00
8	Concrete Inlets, Type 'G-1'	One	4	0	4	150 00	600 00
9.	Concrete Curbs	Cu.Yd.	26	3	29	65 00	1,885 00
10.	Extra for A.C. Concrete Approaches	One	4	1	5	50 00	250 00
11.	Pavement Replacement	Lin.Ft.	20	2	22	5 00	110 00
12.	Adjust Manhole	One	2	0	2	100 00	200 00
							17,020 00
	Additional Anticipated Items: Flagging (State Share)						100 00
						17,120 00	17,120 00
	Engineering & Contingencies 12½%	14½%				2,482 40	2,140 00
	Total					$19,602 40	19,260 00

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section SECOND STREET (From Larch St.-Spruce St.) Highway CITY OF CANNON BEACH County CLATSOP Prefix 30-1491

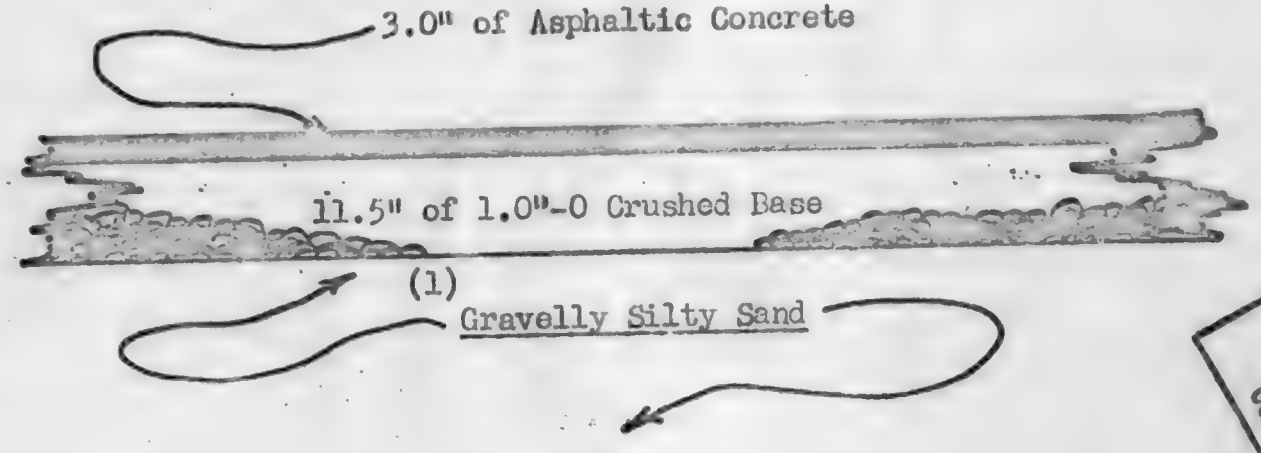
Res. Engr. A. Duffy Approx. Length 0.11± Miles. Sta. _____ to Sta. _____ Date 3-6-69

MEAN
Truck A.D.T. 17 Traffic Coefficient 5.5 18 kip s.a. per day 2.8.

Annual Precipitation 80"± (Seaside) Frost Penetration ----.

(1)
Typical Soil
28 LL
0 PI
71 %P 10
27 %P200
28 %Gravel
6 %C Sand
38 %F Sand
19 %Silt
9 %Clay
10 "R" Value

3-6-69



CBE Total Req.	Credit	Actual Thick.	
	6.0	3.0	A.C.
	11.5	11.5	Cr. Base
17.5	17.5	14.5	

AASHO CLASSIFICATION:

A-2-4

MATERIAL SOURCES:

NOTED
H. S. COX

RECEIVED
MAR 14 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
DON HARWELL

cc:

B.P.R.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist County-City (2)

Submitted by C. E. Gregg for Staff Assistant

Recommended by _____ Engineer of Materials

Recommended by _____ for Construction Engineer

Approved by _____ Asst. State Highway Engineer

SECTION: SECOND STREET

HIGHWAY: CITY OF CANNON BEACH

COUNTY: CLATSOP

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	P.M.B.B. or C.T.B.	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
N O N E							

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0 " Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8 " Crushed Base
1.0"	Cement Treated Base	=	1.8 " Crushed Base
1.0"	Oil Mat	=	1.1 " Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8 " Crushed Base
1.0"	Lime Treated Subgrade	=	___ " Crushed Base

Above factors apply to materials that comply with the Standard Specifications.

TRAFFIC ANALYSIS

SECTION: SECOND STREET

HIGHWAY: CITY OF CANNON BEACH

COUNTY: CLATSOP

150 Present ADT (1969)

8 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	10	1.7	17	14	450	6,300
3	2	1.7	3	3	1000	3,000
4	0	---	---	---	1250	-----
5	0	---	---	---	3180	-----
6	0	---	---	---	2570	-----
				17	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 9,300

TWENTY YEAR EWL 186,000

TRAFFIC COEFFICIENT 5.5

SECTION: SECOND STREET

HIGHWAY: CITY OF CANNON BEACH

COUNTY: CLATSOP

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: Asphaltic Concrete or Oil
7. Stage Construction: Not applicable
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: City prefers Asphaltic Concrete
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison as this is a short (0.11 mi.) project.
See items 6 & 12.

RECEIVED
FEB 17 1969
FO...

PREFIX NO. 304-1491

304-1704

7301

LOCATION PROSPECTUS
CANNON BEACH (SECOND STREET) SECTION
CITY STREET - CLATSOP SOUNTY

NOTED
R. L. PORTER

2-10-69

HIGHWAY: Second Street from Larch Street to Spruce Street in the city of Cannon Beach. Not on Federal-aid or State system.

TERMINI: The westerly terminus is at the intersection of Second Street and Larch Street. The easterly terminus is at the intersection of Second Street and Spruce Street.

LENGTH: 0.11 Mile.

PROGRAM: 1969 Special City Allotment Funds.

NARRATIVE: This will be a survey to prepare plans, specifications and estimates for street reconstruction on existing alignment. The existing drainage is inadequate and will require storm sewer installation. The existing sidewalks are not uniform and will be at variance with the proposed curb. This was discussed by the City, Field Engineer Unrein, and Resident Engineer Duffy and will be discussed further after field survey to determine the grade of the proposed curb. Soils investigations will be conducted.

TYPICAL SECTION: Forty-foot curb to curb street section.

BASE DESIGN: The tentative base design for construction is:

3"	A. C.
2"	Level
8"	Crushed Base
13"	Total

MATERIALS: Commercial sources at Seaside and Astoria.

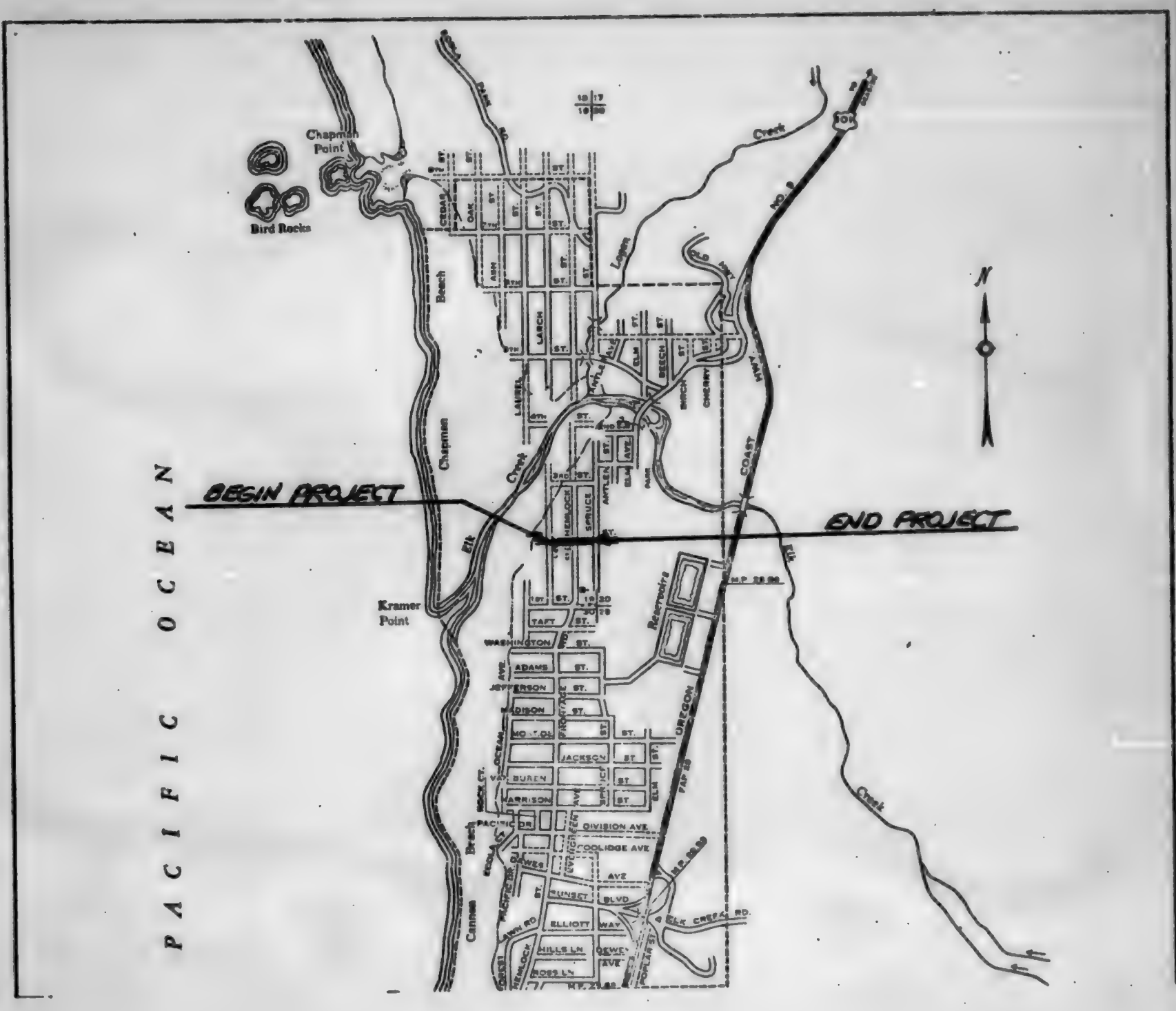
ADD'L FACILITIES: None.

AGREEMENTS: Routine negotiations for Special City Allotment project.

Attachment
February 10, 1969
cc's: over

cc's: R.D. Asburry (4)
Forrest Cooper
Tom Edwards
F.H. Klaboe
V.D. Wolfe
D.J. Barbee
F.B. Crandall
F.L. Hall
E.S. Hunter
Ivan Merchant (4)
D.H. Moehring (3)
F.D. Morgan
L.H. Young
J.M. Cartwright (2)
R.N. Chase
H.S. Cox (2)
B.L. Gifford
W.N. Hackleman
V.J. Johnson
A.D. Olson
R.E. Olson
Jack Rowland
Robert Royer
W.H. Tebeau
F.E. Terpin
O.C. Turner
F.W. Yarbrough (2)

NOTED
FORREST COOPER



Typical Section

Prospectus Map
Second Street Section
City of Cannon Beach
Clatsop County
1969
Arthur Duffy Res. Eng'r.

RECEIVED
FEB 10 1969
FOR
304-1704
7301

MISC. CONTRACTS and
AGREEMENTS No. 3623

February 7, 1969

City of Cannon Beach
City Hall
Cannon Beach, Oregon 97110

Attention: Mrs. Nina McCoy
City Recorder

Gentlemen:

Attached for your files is a fully executed copy of an agreement covering improvement of Second Street from Larch Street to Spruce Street in your city.

We have retained a fully executed copy of this agreement for the Commission's records.

Very truly yours,

Floyd Cuery, Secretary
OREGON STATE HIGHWAY COMMISSION

fkm

Attachment

cc H. S. Cox
(agreement attached)

73-1

S.C.A. Investigation Data

City of CANNON BEACH Date 8-21-68 Div. 2
Population: 1968 520 1963 519
Street 2nd St. from SEA-WALL to SPRUCE ST.

No. previous projects 0
Last project — (year)
Total SCA funds $ 0
Funds/capita $ 0
Average/capita $ 57.58

EXISTING

Surface now in place: A.C. — Oil X Gravel — Concrete —
Surface width: 40± feet, Shoulder-shoulder width: 40± feet
C-C width: — feet, R/W width: 50 feet
Remarks: Existing oiled surface in rough & deteriorated condition. St. receives considerable tourist traffic. On the East End Public Rest rooms attract traffic and on the West End a view point attract traffic. St. is in heart of business area. Met with Mayor GOMER. good project

PROPOSED

Surfacing: A.C. X Oil — Other —
Pave. width: 40 feet, Shoulder width — feet, C-C width: 40 feet
BASE DESIGN: A.C. 3 inches, Leveling 2 inches, Base 8 inches
Lime T.S.G. — inches, Blanket — inches, P.M.B.B. — inches
Length: 0.15 mile, 760 feet. Type curb: "C" possibly type "A"
Remarks: Existing sidewalks are approx. 42' apart, but are in poor condition. No Drys — only curb cuts.

ESTIMATE Item	Unit	Gross*	Price	Amount
Temp. protection & direction of traff. ($500-$1,000)	all	all	$ L.S.	$ 500.00
Clearing & grubbing	all	all	L.S.	300.00
General excavation	c.y.	1,950	1.50	2,925.00
Finishing roadbed & slopes ($1,500)	mile	.15	1500.00	225.00
Trench excavation	c.y.	165	4.00	660.00
Watering	M-gal.	40	3.50	140.00
Level material (3/4-0)	c.y.	300	4.90	1,470.00
Base material	c.y.	1,200	4.65	5,580.00
Asphalt	ton	660	15.00	9,900.00
Binder	all	all	L.S.	600.00
Concrete inlets	each	7	160.00	960.00 1120
Culvert pipe 12"	lin. ft.	800	4.00	3,200.00
Concrete curbs 1550'	c.y.	48	65.00	3,120.00
Adj. M.H.'s	Each	4	100.00	400.00

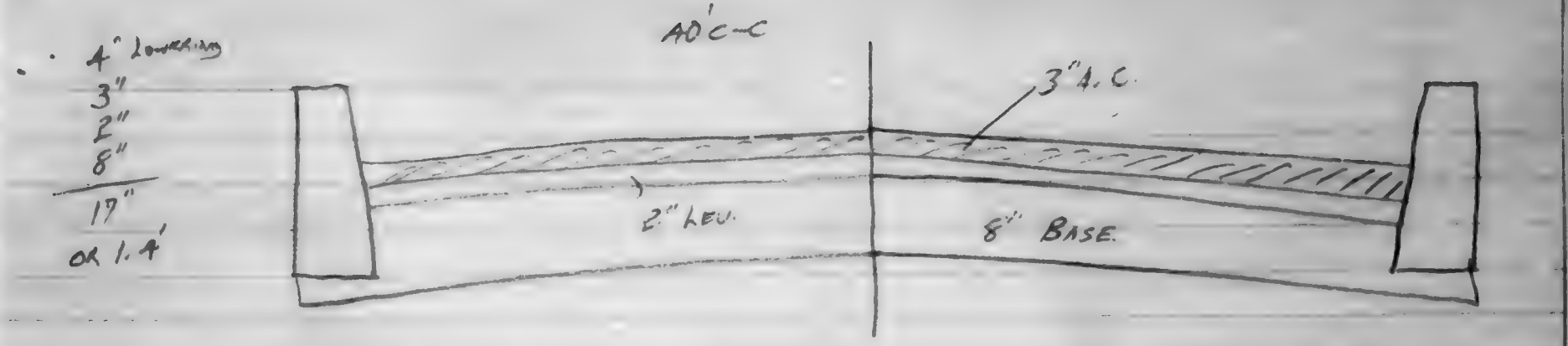
*Items include 10% allowance

Total	$ 29,980.00
Perm. signing ($100/intersection)	300.00
Flagging	50.00
Total	$ 30,330.00
Engineering & contingencies (20%)	6,066.00
Total	$ 36,396.00
City's estimated share of survey	470.00
TOTAL ESTIMATED COST	$ 36,866.00

or $ 37,000

2 A&T 100/M

CANNON BEACH
2nd. ST.
8-21-68 PM



GEN EXC. = $\frac{1.4 \times 42 \times 810 \times 1.1}{27}$ = 1950 c.y.

TR. EXC. = $\frac{2.5 \times 2.2 \times 800}{27}$ = 165 c.y.

WATER = .0275 x (1,500) = 40 M-GAL.

LEV. = $\frac{.17 \times 40.0 \times 810 \times 1.43}{27}$ = 300 c.y.

BASE = $\frac{.67 \times 40.7 \times 810 \times 1.43}{27}$ = 1,200 c.y.

A.C. = 80.3 x 8.1 = 650 TON.

BINDER = $4,000 X .15 = $600.00

CURBS = .031 X 1550' = 48 c.y.

SURVEY EST $1,500

$\frac{11,396}{36,396} \times 1,500 = \$470$

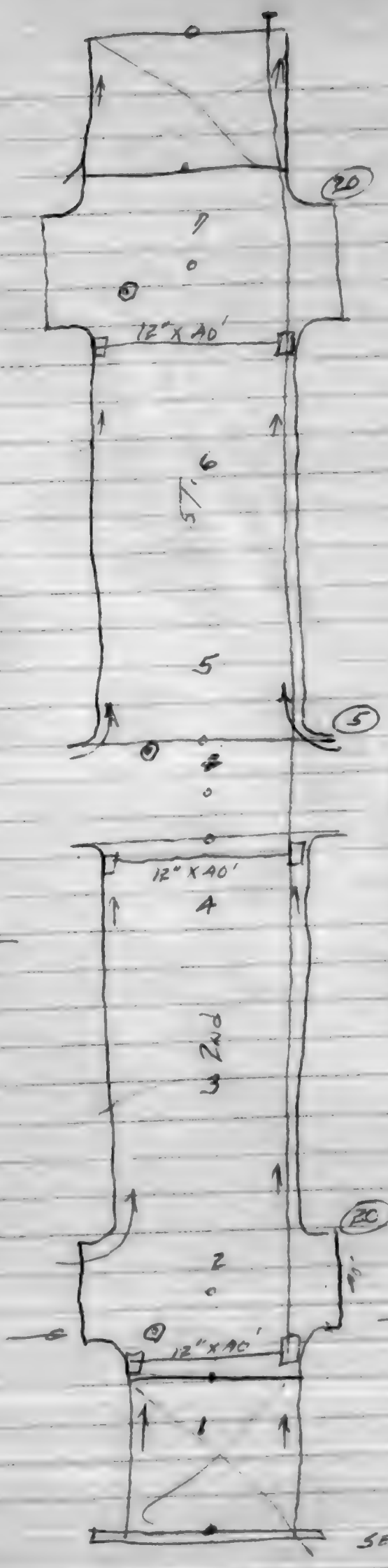
CANNON BEACH
2nd St.
8-21-68
LLL

8+00

7+62
1+65
597
(7+15)

7+20

6+80



SPRUCE ST

Adj MH.'s	Inlets	12" pipe
3	6	600'
1	1	120
(4)	(7)	720
		80
		(800')

HEMLOCK ST (4W)

Length = 762' or Mile .15
Extra = 48
910' for comput.

Cuab Length = 762 / 1524 = (1550')

LARCH ST.

4+60

4+40

4+22

1+85

(1+65)

0+00

S.C.A. Investigation Data

City of Carmel Beach Date _____ Div. ___
Population: 19__ _____ 19__ _____
Street 2nd St. From Sea-wall To Spruce St.

No. previous projects ___
Last project _____ (year)
Total SCA funds $_____
Funds/capita $_____
Average/capita $_____

EXISTING

Surface now in place: A.C. ____ Oil____ Gravel____ Concrete_____
Surface width: _____ feet, Shoulder-shoulder width: _____ feet
C-C width: _____ feet, R/W width: _____ feet
Remarks: _____

PROPOSED

Surfacing: A.C. _____ Oil _____ Other_____
Pave. width: _____ feet, Shoulder width _____ feet, C-C width: _____ feet
BASE DESIGN: A.C. _____ inches, Leveling _____ inches, Base _____ inches
Lime T.S.G. ___ inches, Blanket ___ inches, P.M.B.B. ___ inches
Length: .14 mile, 715 feet. Type curb: _____
Remarks: _____

ESTIMATE Item	Unit	Gross*	Price	Amount
Temp. protection & direction of traff. ($500-$1,000)	all	all	$ L.S.	$ 500.00
Clearing & grubbing	all	all	L.S.	250.00
General excavation	c.y.	1,850	1.50	2,775.00
Finishing roadbed & slopes ($1,500)	mile	.14	1,500.00	210.00
Trench excavation	c.y.	165	4.00	660.00
Watering	M-gal.	40	3.50	140.00
Level material (3/4-0)	c.y.	275	4.90	1,347.50
Base material	c.y.	1,100	4.65	5,115.00
Asphalt	ton	615	15.00	9,225.00
Binder	all	all	L.S.	465.00
Concrete inlets	each	7	160.00	1,120.00
Culvert pipe	lin. ft.	800	4.00	3,200.00
Concrete curbs	c.y.	45	65.00	2,925.00
Adj. M.H.'s	EACH	4	100.00	400.00

*Items include 10% allowance

Total	$ 28,332.50
Perm. signing ($100/intersection)	300.00
Flagging	50.00
Total	$ 28,682.50
Engineering & contingencies (20%)	5,736.50
Total	$ 34,419.00
City's estimated share of survey	547.00
TOTAL ESTIMATED COST	$ 34,966.00
	$35,000

$250,000/mi.

CANNON BEACH
2nd St.
9-3-60 AM

Est. for Paved Sea-Wall To E. Line Spruce St.

Length - 7.15 Miles + Extra (50') - 765' for computing

Gen Exc = $\frac{1.4 \times 42 \times 765 \times 1.1}{27}$ = 1850 c.y.

Water .0275 (1375) = 40 M-Gal

Lev. = $\frac{.19 \times 40 \times 765 \times 1.43}{27}$ = 275 c.y.

Base = $\frac{.67 \times 40.2 \times 765 \times 1.43}{27}$ = 1,100 c.y.

A.C. = 80.3 X 7.65 = 615 Ton.

Binder = $4,000 \times .14$ = $465

Curbs = .031 X 1430' = 45 c.y.

Survey Est $2,000 =

$\frac{9,419}{34,419}$ = $547

S.C.A. Investigation Data

City of CANNON BEACH Date _____ Div. ___
Population: 19__ _____ 19__ _____
Street 2nd St. From Larch St. To Spruce St.

No. previous projects ____
Last project _____ (year)
Total SCA funds $_____
Funds/capita $_____
Average/capita $_____

EXISTING

Surface now in place: A.C. ____ Oil____ Gravel____ Concrete_____
Surface width: _____ feet, Shoulder-shoulder width: _____ feet
C-C width: _____ feet, R/W width: _____ feet
Remarks: _____

PROPOSED

Surfacing: A.C. _____ Oil _____ Other_____
Pave. width: _____ feet, Shoulder width _____ feet, C-C width: _____ feet
BASE DESIGN: A.C. _____ inches, Leveling _____ inches, Base _____ inches
Lime T.S.G. ___ inches, Blanket ___ inches, P.M.B.B. ___ inches
Length: .11 mile, 560 feet. Type curb: _____
Remarks: _____

ESTIMATE Item	Unit	Gross*	Price	Amount	
Temp. protection & direction of traff. ($500-$1,000)	all	all	$ L.S.	$ 500.00	—
Clearing & grubbing	all	all	L.S.	250.00	
General excavation	c.y.	1470	1.50	2,205.00	
Finishing roadbed & slopes ($1,500)	mile	.11	1,500	165.00	—
Trench excavation	c.y.	165	4.00	660.00	
Watering	M-gal.	30	3.50	105.00	
Level material (3/4-0)	c.y.	220	4.90	1,078.00	
Base material	c.y.	880	4.65	4092.00	
Asphalt	ton	490	15.00	7,350.00	
Binder	all	all	L.S.	440.00	—
Concrete inlets	each	7	160.00	1,120.00	
Culvert pipe	lin. ft.	800	4.00	3,200.00	
Concrete curbs	c.y.	35	65.00	2,275.00	
Adj. M.H.'s	Each	4	100.00	400.00	
					—
					—

*Items include 10% allowance

	Total	$ 23,840.00	
Perm. signing ($100/intersection)		300.00	—
Flagging		50.00	—
	Total	$ 24,190.00	22735
Engineering & contingencies (20%)		4,838.00	4547
	Total	$ 29,028.00	27,282
City's estimated share of survey		277.00	118
TOTAL ESTIMATED COST		$ 29305.00	$27,400
		($29,500)	($27,5[illegible]

$ 26800/mi

CANNON BEACH W. 2nd St.
HEMLOCK ST.

CANNON BEACH
2nd. St.
9-3-68 pd.

EST. FOR PROJECT — W. Line Larch St to E. Line Spruce St.
.11 mile

Length = 560 + extra(50') = 610' for computing

GEN. EXC. = $\frac{1.4 \times 42 \times 610 \times 1.1}{27}$ = 1,470 c.y.

Water = .0275 x (1100) = 30 M-Gal.

Lev. = $\frac{.17 \times 40.0 \times 610 \times 1.43}{27}$ = 220 c.y.

BASE = $\frac{.67 \times 40.7 \times 610 \times 1.43}{2''}$ = 880 c.y.

A.C. = 80.3 X 6.1 = 490 Ton

Binder = $1,000 X .11 = $440

Curbs = 1.031 X 1120' = 35 c.y.

SURVEY Est. $2,000

$\frac{1,028}{29,028} \times 2,000 = $ 277

SCA

NOTED
H. S. COX

PROJECT DATA, CITY OF CANNON BEACH Date April 26, 1968

To be financed by Special City Allotment Fund and necessary city funds.

Street name Division St., Spruce St., First St., Second St., Larch St., and Fifth St.
(Locate project on attached map.)

Project length ~~0.050~~ 4,050 feet, ~~approx~~.

DESIRED STREET SECTION:

Standard roadway; width of travel way: ~~30'~~ feet, width of shoulders: ___ feet

Curbed section; width curb to curb: ~~28~~ 40' feet, Second Street only

Remarks _____

Surface now in place: Oil XX Paving ____ Gravel ____

Present surface width: _____ feet

RIGHT-OF-WAY: (City shall, without cost to State, provide all right-of-way required)

Width of present right-of-way: 50 / feet

Additional right-of-way required? Yes ___ No XX

State to furnish right-of-way descriptions? Yes ___ No XX

Give width of intersecting streets: _____

Are intersecting streets curbed? Yes ___ No XX

Remarks _____

CONCRETE CURBS: (All new curbs to be constructed at city's expense.)

Now in place? Yes ___ No XX

Width between present curbs: _____ feet

City to construct curbs? Yes ~~XX~~ No ~~XX~~

To be constructed as part of project? Yes X No ~~XX~~

Length of desired radius on curb returns: _____ feet

Does city desire special type of curbs? Yes ___ No XX

Explain: _____

RECEIVED
APR 30 1968
ENGINEER
COUNTY & CITY DIVISION

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

SIDEWALKS (All new sidewalks to be constructed at City's expense.)- - - - - -

Are sidewalks now in place? Yes___ No XX , only on Second Street

Present sidewalks, Length: _____feet; Width:_____feet

Distance between present sidewalks: _____feet

Are sidewalks to be constructed as part of project? Yes___ No XX

Width of sidewalks to be constructed: _____feet

Are sidewalks to be constructed only on one side of street? Yes___ No___

Are sidewalks to be constructed on both sides of street? Yes___ No___

Give: Length to be constructed and On which side of street

_____feet N.___ S.___ E.___ W.___

_____feet N.___ S.___ E.___ W.___

Should sidewalks be placed against curbs? Yes___ No___

Is utility strip required? Yes___ No XX; Width: _____feet

Remarks_____

_____

_____

STORM SEWERS -

Now in place? Yes XX No___

If yes, are they adequate for increased flow? Yes XX No___

Indicate depth of main lines from present surface: 18' to 2feet

To be constructed by City? Yes___ No___(Storm sewers not involved)

To be constructed as part of project? Yes___ No XX

/Show location of outfall on city map./

SANITARY SEWERS -

Now in place? Yes XX No___ /NOTE: City to adjust if required./

If yes, indicate depth of sewers from present surface: 5' - 10'feet

Remarks_____

_____

_____

NOTED
RICHARD UNREIN

WATER MAINS: (City to adjust if required.)

Now in place? Yes XX No ___

If yes, how deep from present surface? 1' - 1.5 feet

Remarks water lines will not be involved

DRIVEWAYS: (All driveway construction beyond curb line to be at city's expense.)

To be constructed as part of project? Yes ___ No XX

Asphaltic concrete? Yes ___ No ___

Portland cement? Yes ___ No ___

How many? _____

Must driveways be Portland cement to comply with city code? Yes ___ No ___

Is there a city ordinance specifying width and number of driveways permitted?
Yes ___ No XX (If yes, please include copy of ordinance.)

Remarks _____

FRANCHISED UTILITIES: (City is to arrange for any required adjustment.)

Gas lines? Yes ___ No XX

Electric poles? Yes XX No ___

Which company? Pacific Power & Light Co.
(NOTE: If city-owned, city to adjust.)

Telephone poles? Yes XX No ___

Which company? Pacific Northwest Bell

Railroad tracks? Yes ___ No XX

Which company? _____

Is crossing presently protected by automatic railroad signals?

Yes ___ No ___

Remarks _____

NOTED
RICHARD UNREIN

WORK TO BE DONE BY CITY AS PART OF PROJECT:

Grading? Yes ___ No ___

Clearing? Yes ___ No ___

Base rock? Yes ___ No ___

Concrete curbs? Yes ___ No ___

Driveways? Yes ___ No ___

Remarks _____

GENERAL INFORMATION:

Are city finances available? Yes X No ~~XX~~

When available? Date _____

Has city established grade on street? Yes ___ No XX (already established streets)
(If yes, please include copy of data.)

Please indicate site for disposal of excess excavated material: City lots on west side of Spruce Street between First and Second Streets.

General remarks: _____

By Gerald R. Glover
Mayor

By Mae McCoy
City Recorder ~~or City Manager~~

By Charles W. Edson
City Engineer

NOTED
RICHARD UNREIN

RECEIVED
MAR 18 1968
ENGINEER
COUNTY & CITY DIVISION

3-15-68

R E S O L U T I O N

WHEREAS, under the provisions of ORS 366.800 and 366.805 there has been withdrawn from state highway funds appropriated for allocation to the several cities of the State of Oregon the sum of Two Hundred Fifty Thousand and No/100 ($250,000) Dollars, and said sum has been set up in a separate account to be administered by the State Highway Commission and to be spent each year by said Commission upon streets not a part of the state highway system, within cities, which are receiving excessive wear through sudden increases in population in the area or heavy and unusual traffic; and

WHEREAS, the City of Cannon Beach is an incorporated city of the State of Oregon and has a population of 520 as given by the latest official census; and

WHEREAS, the following streets of said city,
Second Street from Spruce Street, west;
Spruce Street from Third Street to First Street, south;
First Street to Alternate Highway 101 intersection;
Division Street from Alt.Hwy.101 intersection to ramp to beach, west;
Fifth Street to Larch Street, west; (from Ecola Park Road intersection)
Larch Street to Sixth Street, north;
Larch Street from Second Street intersection 400' approx., south;

are not a part or parts of the state highway system, but are streets under the jurisdiction and control of said city which are "receiving excessive wear through sudden increase in population in the area, or heavy and unusual traffic," and

WHEREAS, said streets are and each of them is in need of repair, reconditioning, and other major improvement,

NOW, THEREFORE, the members of the City Council, in regular or special session assembled, do hereby find, declare, and resolve:

1. That the aforesaid named streets of said city are in need of repair, reconditioning, and other major improvement.

2. That said streets are in their present state and condition of disrepair by reason of excessive wear through sudden increases in population in the area, or by heavy and unusual traffic.

3. That the Oregon State Highway Commission hereby is respectfully requested to consider and declare said streets as qualified for reconditioning, repair, and other improvement out of funds allocated and made available by and through the said $250,000 appropriation of state highway revenues which is to be administered and spent by the Highway Commission.

(cc-50, 1959 Rev.)

4. That the City of Cannon Beach does hereby offer to State Highway Commission, and does hereby pledge complete cooperation and assistance to the end that said city may share and participate in the use and benefit of said special fund and appropriation; and therefore does designate Mayor Gerald R. Gower as the official representative of the city in all negotiations resulting from this request.

Passed and approved this 7th. day of March, 1968.

There is attached hereto and made a part hereof, a city map on which is indicated the street, streets, road, or roads described in this resolution.

- - - - - - - - - - - - - - - - - - -

I hereby certify that the foregoing resolution was passed and approved by the City Council of the City of Cannon Beach at a regular or special meeting of said Council, held on the 7th day of March, 1968, and the above copy is a true and correct copy of the original and of the whole thereof.

Dated this 15th day of March, 1968.

Mae MacCoy
City Recorder

(cc-50, 1959 Rev.)

I-5-2(62) North &South Canyonville and 1969
97 West Fork Interchanges on Pacific
#7302 Hwy., S. of Rsbrg. (Rdside imp.)

STATE COPY

Monthly transaction number 2-48	FEDERAL HIGHWAY ADMINISTRATION Bureau of Public Roads	State Oregon
Project report number 8	**MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT**	County Douglas
Modification number 1	(PPM 21-7) 2-16-71	Project number I-5-2(62)97

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 19, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 68,182	$ 79,457
Federal funds	$ 62,800	$ 73,200
Other revisions		

This modification is made for the following reasons:

Increase in bid item quantities and additional approved items.

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 16 day of February, 19 71.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By _____

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)
For R. E. Simpson

Form PR-2A (Rev. 4-70) Existing stocks of Form PR-2A (Rev. 10-68) will be used.

Oregon State Highway Division

Federal-Aid
Project No. I-5-2(62)97

N. & S. CANYONVILLE AND WEST FORK INTERCHANGES

ON THE PACIFIC HIGHWAY IN DOUGLAS COUNTY

Salem, Oregon, February 10, 1971

Revised project agreement estimate.

Type Code Y003
Roadside Improvement (Sta. 34+50 to Sta. 63+45)(Sta. 174+85 to Sta. 190+00)
(Contract No. 7302)

Temporary Protection and Direction of Traffic	All Required		$ 500.00
Furnishing and Placing Topsoil	2,330 cu.yd.	3.00	6,990.00*
18-inch Storm Sewer Pipe	300 lin.ft.	5.50	1,650.00
A.C. Concrete Walks	34 sq.yd.	4.00	136.00
Lawn Construction	1.50 acre	2,500.00	3,750.00
Furnishing and Planting Trees	60 only	13.00	780.00
Furnishing and Planting Shrubs	1,450 only	3.85	5,582.50
Furnishing and Planting Vines	22,500 only	0.42	9,450.00
Bark Mulch	198 unit	38.00	7,524.00*
1/2-inch Water Pipe	2,700 lin.ft.	0.45	1,215.00
3/4-inch Water Pipe	2,500 lin.ft.	0.55	1,375.00
1-inch Water Pipe	3,100 lin.ft.	0.65	2,015.00
1 1/4-inch Water Pipe	1,800 lin.ft.	0.70	1,260.00
1 1/2-inch Water Pipe	500 lin.ft.	0.80	400.00
2-inch Water Pipe	1,600 lin.ft.	0.95	1,520.00
2 1/2-inch Water Pipe	1,600 lin.ft.	1.25	2,000.00
3-inch Water Pipe	425 lin.ft.	2.00	850.00
2 1/2-inch Steel Water Pipe	190 lin.ft.	2.50	475.00
3-inch Steel Water Pipe	630 lin.ft.	3.50	2,205.00
2 1/2-inch Gate Valves	2 only	60.00	120.00
3/4-inch Globe Valves	12 only	15.00	180.00
1 1/4-inch Automatic Section Valves	32 only	42.00	1,344.00
1 1/2-inch Automatic Section Valves	15 only	50.00	750.00
2-inch Automatic Section Valves	3 only	60.00	180.00
3/4-inch Quick-Coupling Hose Valves	12 only	18.00	216.00
1/2-inch Manual Drain Valves	70 only	15.00	1,050.00
2-inch Vacuum Breaker Valves	2 only	225.00	450.00
Pop-up Rotary Sprinkler Heads, Part-Circle	50 only	38.00	1,900.00
Pop-up Rotary Sprinkler Heads, Full-Circle	26 only	40.00	1,040.00
Shrubbery Sprinkler Heads	510 only	2.10	1,071.00
Part-Circle Agricultural Rotary Sprinkler Heads	26 only	15.00	390.00
11-Section Automatic Controllers	1 only	750.00	750.00
15-Section Automatic Controllers	1 only	850.00	850.00

24-Section Automatic Controllers	1 only	1,000.00	$ 1,000.00
3/4-inch Electrical Conduit	180 lin.ft.	1.00	180.00
1 1/2-inch Electrical Conduit	280 lin.ft.	1.50	420.00
2-inch Electrical Conduit	310 lin.ft.	2.00	620.00
			$62,188.50
Flagging (60% of Contractor's Cost)	All Required		$ 50.00
Two 2" Water Meters	All Required		550.00
Install Water Meters	All Required		500.00
Irrigation Water	All Required		1,700.00
PA 2 Furnish and Plant Shrubs	84 only	3.35	281.40
PA 3 Furnish and Plant Vines	5,164 only	.42	2,168.88
PA 4 Type "D" Inlet	1 only	275.00	275.00
PA 4 Type "G-2" Inlet	2 only	225.00	450.00
PA 4 8-inch Perf. Metal Drain Pipe	60 lin.ft.	6.00	360.00
PA 4 12-inch Perf. Metal Drain Pipe	79 lin.ft.	8.00	632.00
PA 4 18-inch Concrete Pipe	136 lin.ft.	12.00	1,632.00
PA 4 Type "C" Concrete Curbs	10.92 cu.yd.	75.00	819.00
PA 4 Asphalt Concrete Sidewalk	19.4 sq.yd.	4.00	77.60
PA 4 Adjust Inlet	3 only	150.00	450.00
PA 4 Adjust Type "D" Inlet	1 only	100.00	100.00
			$10,045.88
	Subtotal		$72,234.38
	10% Engr. & Cont.		7,222.62
	Total		$79,457.00

*Increase in bid item quantities.

Length of Project - - - 0.00 Mile

Federal Funds -	$73,200.00
State Funds -	6,257.00
Total Cost	$79,457.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

G 1 - 100%

Prefix: 610-1031

STATE COPY

Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-42		Oregon
PROJECT REPORT NO.	**FEDERAL-AID PROJECT AGREEMENT**	COUNTY
3	*(PPM 21-7)* 9-17-69	Douglas
		PROJECT NO. I-5-2(62)97

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

N. & S. Canyonville and West Fork Interchanges on the Pacific Highway

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	8-6-69	0.00
OTHER *(Specify)*		

FUNDS Pro rata 92.25%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 68,182	$ 62,800.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By [signature]

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By [signature]
(Division Engineer)

For R. E. Simpson

Date executed by Division Engineer SEP 19 1969

Oregon State Highway Division

Federal-Aid
Project No. I-5-2(62)97

N. & S. CANYONVILLE AND WEST FORK INTERCHANGES

ON THE PACIFIC HIGHWAY IN DOUGLAS COUNTY

Project Agreement Estimate.

Salem, Oregon, September 10, 1969

Type Code Y003
Roadside Improvement (Sta. 34+50 to Sta. 63+45)(Sta. 174+85 to Sta. 190+00)
Contract No. 7302

Temporary Protection and Direction of Traffic	All Required		$ 500.00
Furnishing and Placing Topsoil	2,000 cu.yd.	3.00	6,000.00
18-inch Storm Sewer Pipe	300 lin.ft.	5.50	1,650.00
A.C. Concrete Walks	34 sq.yd.	4.00	136.00
Lawn Construction	1.50 acre	2,500.00	3,750.00
Furnishing and Planting Trees	60 only	13.00	780.00
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1/2-inch Water Pipe	2,700 lin.ft.	0.45	1,215.00
3/4-inch Water Pipe	2,500 lin.ft.	0.55	1,375.00
1-inch Water Pipe	3,100 lin.ft.	0.65	2,015.00
1 1/4-inch Water Pipe	1,800 lin.ft.	0.70	1,260.00
1 1/2-inch Water Pipe	500 lin.ft.	0.80	400.00
2-inch Water Pipe	1,600 lin.ft.	0.95	1,520.00
2 1/2-inch Water Pipe	1,600 lin.ft.	1.25	2,000.00
3-inch Water Pipe	425 lin.ft.	2.00	850.00
2 1/2-inch Steel Water Pipe	190 lin.ft.	2.50	475.00
3-inch Steel Water Pipe	630 lin.ft.	3.50	2,205.00
2 1/2-inch Gate Valves	2 only	60.00	120.00
3/4-inch Globe Valves	12 only	15.00	180.00
1 1/4-inch Automatic Section Valves	32 only	42.00	1,344.00
1 1/2-inch Automatic Section Valves	15 only	50.00	750.00
2-inch Automatic Section Valves	3 only	60.00	180.00
3/4-inch Quick-Coupling Hose Valves	12 only	18.00	216.00
1/2-inch Manual Drain Valves	70 only	15.00	1,050.00
2-inch Vacuum Breaker Valves	2 only	225.00	450.00
Pop-up Rotary Sprinkler Heads, Part Circle	50 only	38.00	1,900.00
Pop-up Rotary Sprinkler Heads, Full Circle	26 only	40.00	1,040.00
Shrubbery Sprinkler Heads	510 only	2.10	1,071.00
Part-Circle Agricultural Rotary Sprinkler Heads	26 only	15.00	390.00
11-Section Automatic Controllers	1 only	750.00	750.00
15-Section Automatic Controllers	1 only	850.00	850.00

24-Section Automatic Controllers	1 only	1,000.00	1,000.00
3/4-inch Electrical Conduit	180 lin.ft.	1.00	180.00
1 1/2-inch Electrical Conduit	280 lin.ft.	1.50	420.00
2-inch Electrical Conduit	310 lin.ft.	2.00	620.00
			$59,184.50
Flagging (60% of Contractor's Cost)	All Required		$ 50.00
Two 2" Water Meters	All Required		550.00
Install Water Meters	All Required		500.00
Irrigation Water	All Required		1,700.00
			$ 2,800.00
	Subtotal		$61,984.50
	10% Engr. & Cont.		6,197.50
	Total		$68,182.00

Length of Project - - - 0.00 Mile

Federal Funds -	$62,800.00
State Funds -	5,382.00
Total Cost	$68,182.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.

State Funds for Maint.: Chap. 529, Laws 1939.

G-1-100%
Prefix 610-1031

RECEIVED
JAN 18 1971
FINANCE

I-5-2(62)97
7302

January 18, 1971

U. S. Fidelity & Guaranty Co.
Portland Office
201 Oregon Bank Building
Portland, Oregon 97204

Gentlemen:

On January 13, 1971, we wrote to you concerning release of final payment on Contract No. 7302 awarded to All-City Landscape, Inc., for roadside improvement on the north and south Canyonville and West Fork Interchange Sections of the Pacific Highway in Douglas County.

Final payment on this contract is $3,349.23 and the total contract amount is $68,713.02, including $221.21 for work performed under force account.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

kl

cc All-City Landscape, Inc.
29 N. E. 148th Avenue
Portland, Oregon 97230

bc F. D. Morgan
I. D. Merchant
C. T. Keasey
V. E. Skoog
Attn: John Herr

RECEIVED
FEB 12 1971
FOR FILING
I-5-2(62)17
7302

#5

January 12, 1971

All-City Landscape, Inc.
20 N. E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

The State Highway Commission at its meeting on January 7 considered your request for a 95-day extension of the early-phase contract time on Contract No. 7302 for roadside improvement on the North and South Canyonville and West Fork Interchanges of the Pacific Highway.

Careful consideration was given to the reasons you submitted. In light of the available facts and the provisions of the contract, the Commission extended the early phase completion time to April 2, 1970, and the overall completion date to June 3, 1970, without assessment of liquidated damages.

If there are pertinent facts which have not yet been considered, you should contact the Resident Engineer, the Regional Engineer or the Construction Engineer in the Salem Office.

Very truly yours,

Floyd Cuery, Secretary
OREGON STATE HIGHWAY COMMISSION

fbm
cc F. D. Morgan
V. E. Skoog
C. T. Kenny
J. R. Rogstorn
Federal Highway Adm.

November 17, 1970

Mr. R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Dear Sir:

Re: North and South Canyonville and
West Fork Interchanges Section
FAP I-5-2(62)97, Contract No. 7302
Request for Time Extension

The subject project was contracted under the 1964 specifications and required completion in two phases by two specified calendar dates. All work except lawn construction was to be completed by December 31, 1969, and all work was to be completed by May 31, 1970. The contractor was given a stop work order effective December 11, 1969, because weather conditions would not permit satisfactory work after that time. The stop work order was lifted March 2, 1970, and the original planting was completed April 2 and lawn construction completed June 3. The attached chart shows the pertinent dates.

All-City Landscape, Inc. requests a complete time extension that would eliminate liquidated damages on both phases because of the stop work order (82 days applied to both phases), plus 10 days on the early phase because of overrun in quantity of Bearberry plants and bark mulch.

Under the 1964 specifications, time on a specified date control is not automatically extended by a stop work order, so we must formally do so. The vine planting item overran by 5,164 plants, or 23 percent. The bark mulch item overran 58 units, or 40 percent. These items are both related to the early phase work and justify 10 days in addition to the 82 days stop time, making a total of 92 days, or April 2, 1970, which would eliminate all liquidated damages on the early phase, Unit "A".

Since the overall project was completed June 3, only three days later than was specified, the step time alone obviously justifies extending the overall completion time for Unit "B" to June 3, 1970, thereby deleting all liquidated damages. We seek your concurrence.

Very truly yours,

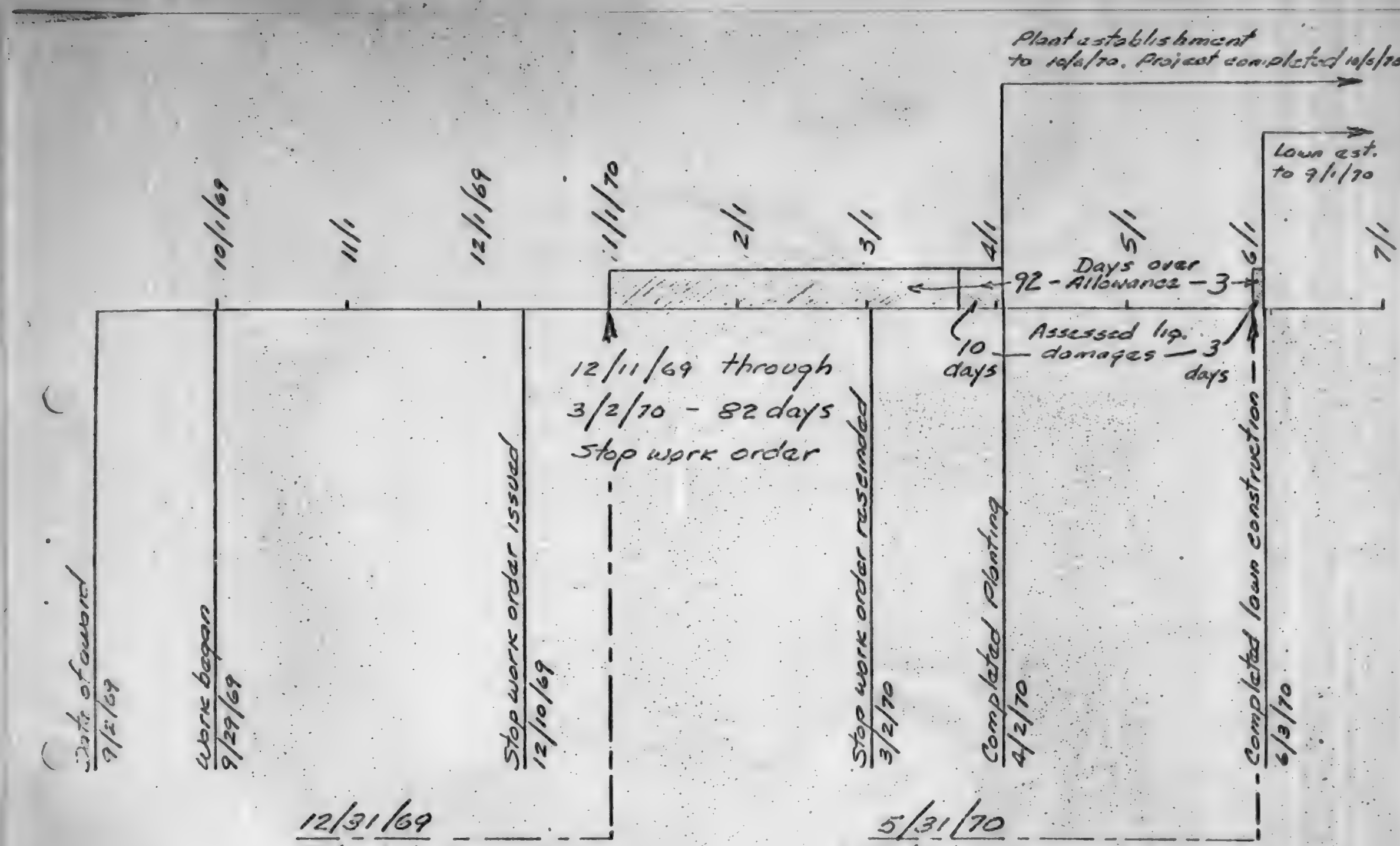
R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

Att.
cc R. L. Porter
Tom Edwards
F. D. Morgan
L. H. Young
V. E. Skoog

JAB:fw ms



N.S. Canyonville & West Fork Interchanges

Contract #7302

FORM E-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 9, 1970

To:

Mr. A. E. Johnson
Assistant State Highway Engineer
BUILDING

SUBJECT: North and South Canyonville and West Fork Interchanges Section
Contract No. 7302
Request for Time Extension

The subject project covers landscape improvement at three locations and was contracted under the 1964 specifications. The contract required completion in two phases by two specified calendar dates. All work except lawn construction was to be completed by December 31, 1969 and all work was to be completed by May 31, 1970. The contractor was given a stop work order effective December 11, 1969 because weather conditions would not permit satisfactory work after that time. The stop work order was lifted March 2, 1970 and the original planting was completed April 2 and lawn construction completed June 3. The attached chart shows the progress and pertinent dates. All-City Landscape, Inc requests a complete time extension that would eliminate liquidated damages on both phases because of the stop work order (82 days applied to both phases) plus 10 days on the early phase because of overrun in quantity of Bearberry plants and bark mulch.

Under the 1964 specifications, time on a specified date control is not automatically extended by a stop work order, so we must formally do so. The vine planting item overran by 5,164 plants or 23 percent. The bark mulch item overran 58 units or 40 percent. These items are both related to the early phase work and justify 10 days in addition to the 82 days stop time making a total of 92 or April 2, 1970 which would eliminate all liquidated damages on the early phase, Unit "A".

Since the overall project was completed June 3, only 3 days later than was specified, the stop time alone obviously justifies extending the overall completion time Unit "B" to June 3, 1970 thereby deleting all liquidated damages. Both the Resident Engineer and the Region recommend extension on the above basis. This was a Federal-aid Interstate project. Rough draft letters to the Federal Highway Administration and the Highway Commission are attached.

F. D. Morgan
Construction Engineer

By John A. Bond

John A. Bond
Construction Administration Engineer

RECEIVED
NOV 13 1970
OFFICE OF
STATE HIGHWAY ENGINEER

JAB:fw
Enc.
cc V. L. Gallagher

RECEIVED
JAN 13 1971
FOR FILING

I-5-2(42)97
7302

January 11, 1971

Oregon State Highway Commission

Gentlemen:

Work was completed June 3, 1970 on Contract No. 7302. The contract was with All-City Landscape, Inc. and was for roadside improvement on the North and South Canyonville and West Fork Interchanges Section of the Pacific Highway in Douglas County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective January 11, 1971 and that you concur in this procedure at the Commission meeting on February 16, 1971.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
F. D. Morgan
I. D. Merchant
V. E. Skoog
L. H. Young
C. T. Keasey

VG:fw

RECEIVED
DEC 22 1970
FOR FILING

I-5-2(62)97
7302

December 21, 1970

Oregon State Highway Commission

Request for Extension of Time
No. 5
January 5, 1971 meeting

Gentlemen:

All-City Landscape, Inc., has requested a 95-day extension of the early-phase contract time on the North and South Canyonville and West Fork Interchanges Roadside Improvement contract in Douglas County. This is Contract No. 7302, which covered landscaping work at three locations on I-5.

The contract required that all work except lawn construction be completed by December 31, 1969, and overall completion by May 31, 1970. Due to unsuitable planting conditions, the work was stopped at our request between December 11, 1969, and March 2, 1970, or 82 days. In addition to this ordered stop work period, an additional 10 days are justified because of a 23 percent overrun in the vine planting item and a 40 percent overrun in the bark mulch item.

I recommend that the early-phase completion time be extended to April 2, 1970, and the overall project completion time be extended to June 3, 1970, which will delete all liquidated damages. This was a Federal-aid Interstate project and we have the concurrence of the Federal Highway Administration.

This matter will be on the agenda for your consideration at the January 5 meeting.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
F. D. Morgan
V. E. Skoeg
L. H. Young
C. T. Keasey

JAB:fw sr

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7302 Contractor All-City Landscape, Inc.

Highway Pacific

Section North & South Canyonville & West Fork Interchanges

Kind of Work Roadside Improvement

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED**. The reasons for such recommendation are as follows:

Recommend extension on early phase ("A") to April 2, 1970 and on overall completion ("B") to June 3, 1970 because of 82 day stop work order (December 11, 1969 to March 2, 1970) and quantity overruns on vine (23%) and bark mulch (40%).

Recommended for Approval:

John Quiner Jr.
Division Engineer
Coast

Construction Engineer or
Bridge Engineer

State Highway Engineer

Contract No.	7302
Project designation	I-5-2(62)97 (State-Federal)
Date awarded	September 2, 1969
Work started	September 30, 1969
Per cent completed	100% June 3, 1970
Specified Completion Date (a) (b)	(a) 12/31/69 (b) 5/31/70
No. of Workdays Used	
No. of Added Workdays Requested	95

E-330 (Rev.)—8M—8-64

OREGON STATE HIGHWAY COMMISSION

Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon 97310

Date October 9, 19 70

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 95 calendar days ..... days to ..... days, within which to complete our Contract No. 7302, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows: (a) December 31, 1969 completed April 2, 1970 (92 days exceed. December 11, 1969 through March 2, 1970 (82 days). Under stop work order 10 days extra needed for planting of additional Barnberry and mulch. Total of 92 days extra under completion date (a). (completion date (b) May 31st, completed June 3, 1970. 3 days extra needed to complete work under price agreement work order. Total of (a) and (b) 92 days.

Respectfully submitted,

All-City Landscape, Inc.
Contractor

By Clifford H. Paul

CONSENT OF SURETY

Date October 13, 19 70

We, UNITED STATES FIDELITY AND GUARANTY COMPANY

....., as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Attorney-in-fact John D. Klump, Jr.

(SEAL)

Resident Agent

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

DATE: November 20, 1970

In reply refer to: 08-35-DB

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-5-2(62)97
North and South Canyonville and West Fork Interchange Section
Request for Time Extension

This office has reviewed your letter of November 17 which requested concurrence in a time extension for the subject project.

The conditions as stated caused a delay in the completion of the work and as the contractor had no control over these delays we concur in your recommendation in extending the time to June 3, 1971, which thereby deletes all liquidated damages.

NOTED
A. E. JOHNSON

NOTED
TOM EDWARDS

RECEIVED
NOV 24 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
OCT 29 1970
FOR FILE

OREGON STATE HIGHWAY DIVISION

I-5-2(62)97

HIGHWAY BUILDING • SALEM, OREGON • 97310

7302

October 8, 1970

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, Oregon 97308

Contract 7302
Prefix 640-1031
FAP I-5-2(62)97

Dear Sir:

The replacement planting work under Contract No. 7302, North and South Canyonville and West Fork Interchanges Section of the Pacific Highway in Douglas County, was completed October 6, 1970.

We request that your office return a signed copy of this letter indicating acceptance or listing below any items or conditions which would prevent your final acceptance of the contract work.

Very truly yours,

R. L. Porter
State Highway Engineer

By F. D. Morgan

F. D. Morgan
Construction Engineer

Federal Highway Administration
Oregon Division Office Endorsement

NOTED
A. E. JOHNSON

Date October 19, 1970

Conditions noted on above date:
Project inspected and found satisfactorily completed on October 6, 1970.

R. E. Simpson
Division Engineer

RECEIVED
OCT 21 1970
OFFICE OF
STATE HIGHWAY ENGINEER

PVR:js
VG:fw
cc R. L. Porter
F. D. Morgan

I-5-2(62)97
9302

FORM E-1 (REV. 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: N & S Canyonville & West Fork Interchange		WEEK ENDING: September 11, 1970
		SECTION PREFIX: 610-1031
HIGHWAY: Pacific		COUNTY: Douglas
NAME OF JOB: N & S Canyonville & West Fork Interchange	KIND OF WORK: Rosdside Improvement	
CONTRACTOR: All-City Landscape, Inc.	CONTRACT NUMBER: 7302	FEDERAL AID PROJECT NUMBER: I-5-2(62)97
DATE OF CONTRACT: September 2, 1969	DATE WORK STARTED: September 30, 1969	ESTIMATED COMPLETION DATE: June 3, 1970
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $79,997.68	SPECIFIED COMPLETION DATE: (a)12/31/69 (b)5/31/70	PERCENT OF TIME ELAPSED: (a) 100% (b) 100%
EXCLUSIVE OF ENGINEERING: $67,997.68	ENGINEERING AUTHORIZATION: $12,000.00	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $68,720.58	ENGINEERING COST TO DATE: $13,500.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100%
ESTIMATED PERCENT OVERRUN: 2.78%	PERCENT OF AUTHORIZATION: 117.80%	DATE PROJECT WAS COMPLETED: (a)4/20/70 (b)6/3/70

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	[illegible] TOPSOIL	[illegible] PLANTING	[illegible] WATERPIPE		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)	2,000 C.Y.	23,051	15,045L.F.		
TOTAL QUANTITIES CORRECTED TO DATE	2,330C.Y.	29,140	14,539L.F.		
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	2,330 C.Y.	29,140	14,539L.F.		
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 6	Cloudy			
MONDAY 7	Cloudy			
TUESDAY 8	Fair			
WEDNESDAY 9	Fair			
THURSDAY 10	Fair			
FRIDAY 11	Fair			
SATURDAY 12	Fair			

BEN GIFFORD

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY 6	
MONDAY 7	No Work
TUESDAY 8	No Work
WEDNESDAY 9	No Work
THURSDAY 10	No Work
FRIDAY 11	No Work
SATURDAY 12	No Work

REMARKS

This contract is now in the establishment period, Plants only.

Semi-final Estimate, submitted to the Reginal Office on the 10th of September 1970.

This will be the final weekly report on this project.

SIGNED J. O. Dayton LOCATION Roseburg, Oregon

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-F216

7302

FORM E-90-X (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

July 30, 1970

To: Mr. Roy Olson
Landscape Engineer
EAST SALEM HIGHWAY BUILDING

SUBJECT: Contract No. 7302
N. and S. Canyonville and
West Fork Interchanges

Contract No. 7330
Biddle Road (Medford) Interchange

Lawn construction and planting work is included as a portion of the work under the above-mentioned contracts. The contracts are under the 1964 Standard Specifications and the Special Provisions of each contract covering the above-mentioned bid items are identical.

Our interpretation of the Special Provisions is that upon completion of original seed sowing and subsequent expiration of the specified 75 calendar-day establishment period, the Engineer will make a final inspection and upon conformance of the lawn with the special provisions, acceptance by the State will follow with any further maintenance the responsibility of the State. Further, the 25 percent lawn retainage will be returned to the contractor upon final acceptance of the project by the State Highway Commission (Article 9-13).

The 75-calendar-day establishment period began May 29, 1970 on Contract No. 7302 and June 13, 1970 on Contract No. 7330. Final payment to the contractors for all work done under the respective contracts is estimated as late December, 1970.

Please give us your interpretation of the intent of the Special Provisions in reference to refunding to the contractor the 25 percent retainage for lawn construction work.

A recent roadside improvement contract, Contract No. 7408 (Emigrant Avenue Interchange), is under the 1970 Standard Specifications. We interpret the intent of Article 683.91, Para. (b), is to refund the lawn construction 25 percent retainage after final inspection and acceptance of all responsibility for the lawn by the Resident Engineer. Please give us your interpretation. (This would ordinarily be earlier than a complete project acceptance as in the situations described above).

These planting retainages require special handling here, so we would appreciate receiving any pertinent information you release following the final lawn inspections on all projects involving roadside improvement contract work.

F. D. Morgan
Construction Engineer

By John A. Bond
John A. Bond
Construction Administration Engineer

JAB/VG:fw

cc D. J. Barbee
V. L. Gallagher

RECEIVED
JUL 31 1970
DIVISION
DIVISION

Trout
Wills
Hackleman
Scott
R. Olson
Carstensen
A. Olson
Campbell
Swenson

RECEIVED
JUL 31 1970

FORM 830—DOM—8-67—6470

FOR FILING

FY-2(12)77
7202

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Roseburg, Oregon
July 28, 1970

SUBJECT: Cabin Creek Safety Rest Area
Pacific Highway
Contract No. 7280
Engineering Costs

To: C. T. Keasey
Division Engineer
Roseburg, Oregon

L

Herewith attached is a breakdown of the engineering charges on the subject project.

In order to better analyze the engineering costs for the Cabin Creek Safety Rest Area Project I submit the following pertinent information:

At the time Cabin Creek was awarded (7/3/69) this engineering crew consisted of 4 men, one HE IV, Two HE I, one E.A. The monthly expenditures for this crew, including office rent, utilities, equipment rental, salaries, materials and supplies amounted to approximately $4,800.00

The Cabin Creek project had a calendar workday allowance of 60 days. On September 23, 1969 these 60 days expired. At that time our engineering expenditures were $6,025.00. The original engineering authorization was $6,768.84. Cabin Creek project was completed March 31, 1970, approximately 9 months from the date of award.

During these 9 months our normal engineering costs based on the above $4,800.00/month would be $43,200. Our actual engineering costs for the 9 months 7/1/69 through 3/31/70 amounted to approximately $36,805., or some $6,400. less than our normal 9 months operating costs. The loaning of men to other crews plus some charges to vacation and sick leave accounts for the difference.

Following is a breakdown of our engineering costs for the period 7/1/69 - 3/31/70:

Roberts Mtn. Slide, Cont. 7216		$7,460.
Prospect Rock Production Cont. 7267		2,005.
Cabin Creek Safety Rest Area Cont. 7280		18,140.
N. & S. Canyonville & West Fork Interchange Cont. 7302		9,200.
	Total	$36,805.

These costs are our field engineering costs and include laboratory charges. Mr. Johnson's letter of 7/23/70 indicates the final engineering cost of $21,187.36. Our field records show $18,315.92. I cannot account for the difference.

Several factors are involved in causing the engineering overrun. The primary cause in this case is the overrun of the contract time. In order to document the project an inspector has to be present at all times the contractor is working.

The Cabin Creek contractor averaged less than 3 men per day on this project, many days only one would appear. On numerous occasions the contractor wouldn't show up at all, at other times he would give notice that he would not work a given day and then change his mind without notification to us. He worked on Saturdays and late in the evenings without notification. Despite my admonitions against such practises, he persisted in not always informing me of his intentions. In self-defense an inspector had to be present at all times.

The documenting and procurement of materials certifications, written prior approval requests, etc., all are time consuming and costly. On the Cabin Creek job, the above was very much moreso because of the contractors procrastination and unwillingness to cooperate.

While we had a man on loan a good portion of the aforementioned 9 months period, we still had to borrow a survey party at various times. We couldn't have done the work with less personnel, and yet we couldn't have had much more work with the personnel we had, one res. engr., one officeman, one inspector for each job.

It all boils down to a fixed engineering cost versus so much money allowed for so much work available. Had the Cabin Creek job taken the allowed 60 days our engineering costs would have been very close to the authorization. Our costs for the first 60 days of this project was right at $3,000./month. Using our final field amount of $18,316., the final 7 months engineering costs was at the rate of $2,200./month.

Also attached is a copy of a previous report covering the same subject.

J. R. Hagedorn
Resident Engineer

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APR 6 - 1970
FOR FILING

I-5-2(62)97
7302

April 6, 1970

Oregon State Highway Commission

Gentlemen:

An overrun of the project authorization on Contract No. 7302, the North and South Canyonville and West Fork Interchanges roadside improvement project on I-5 in Douglas County is anticipated. All-City Landscape, Inc., of Portland is the contractor. This is a Federal-aid Interstate project for which the original authorization was $70,972.25. The present anticipated cost is $79,997.68, indicating an overrun of $9,025.43 or 12.7 percent.

The major reasons for this overrun are for furnishing and planting vines, extra work involved in correcting drainage problems, and an overrun in engineering. The area to be covered by vines was underestimated. Existing drainage problems at both Canyonville Interchanges were aggravated by the current construction and this necessitated additional drainage work to control water runoff.

This request for an additional authorization will be presented to you at the April 21 meeting and your approval is recommended.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
L. M. Young
V. E. Skoog
C. T. Keasey

JAB:DES:fw sr

FORM S-50 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 2, 1970

SUBJECT: Overrun of Project Authorization
North and South Canyonville and
West Fork Interchanges
Contract No. 7302
Pacific Highway

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

Attached is a report on an expected overrun of the project authorization on the subject contract. This project for roadside improvement is under contract to All-City Landscape, Inc. of Portland. The original project authorization was $70,972.25. The present anticipated cost is $79,997.68, indicating an overrun of $9,025.43 or 12.7 percent.

The major reasons for this overrun are overrun in the bid item for furnishing and planting vines, additional work added to the contract to correct inadequate drainage, and an overrun in engineering. The bid item for furnishing and planting vines will overrun more than $1,800, evidently because the areas to be covered by the vines are on slopes and therefore are longer dimensions that flat plans. It was recently decided advisable to provide better drainage at both the Canyonville Interchanges where existing drainage problems were aggravated by this contract work. In the past, water had run into adjacent school property and at another location had run down an already poorly drained city street. We are adjusting several catch basins, adding one, and extending curb returns for positive drainage. Work orders for this amounted to more than $5,100. The overrun in engineering, which amounts to more than $5,000, is due to the necessity of constant inspection while the contractor was working at several isolated locations plus the need for rather elaborate layout of sprinkler system and "as constructed" plan for use by Maintenance Division after the contract is completed. There are 37 bid items.

It is recommended that the project authorization be increased by $9,025.43. Attached is a rough draft letter to the Highway Commission.

F. D. Morgan
Construction Engineer

By John A. Bond
John A. Bond
Construction Administration Engineer

JAB/DES:fw
Attachment
cc: V. L. Gallagher

RECEIVED
APR 2 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Form E-372 (Rev. 10-66)

I-5-2(12)17
7302

OREGON STATE HIGHWAY DEPARTMENT

Expected Overrun of Project Authorization

Project N. & S. Canyonville & West Fork Interchanges Date March 20, 1970

Highway Pacific Contract No. 7302

County Douglas Kind of Work Roadside Improv. Contractor All-City Landscape Inc.

	Authorized	Estimated
Contract Amount	$59,184.50	$60,746.20
Anticipated Items	2,800.00	7,251.48
Contingency (4½%)	2,789.30	
Engineering	6,198.45	12,000.00
Credits		
PROJECT COST	$70,972.25	$79,997.68
NET INCREASE $		9,025.43

MAJOR OVERRUNS AND UNDERRUNS (Describe Briefly)

(Indicate whether contract (C), anticipated (A), or unanticipated (U). (List all unanticipated items)	Expected Amount	Net Change
(C) Furn. & Plant Vines (see P.A. #3)	$22,500.00	(+) $1,816.08
(U) Drainage Correction (see P.A.O. #2)	$400.00	(+) $400.00
(U) Drainage Correction (see P.A. #4)	$4,754.00	(+) $4,754.00
(U) Engineering	$12,000.00	(+) $5,801.55

APPROVED BY
STATE HIGHWAY COMMISSION
DATE 4-21-70

Principal reasons for overruns (Continue on reverse side): Vine overrun evidentally due to estimating off of flat plans while the actual planting areas are sloped between 1:1 and 2:1 and therefore quite larger in area than plans would show,
cont'd on reverse side

INSTRUCTIONS: A report on this form is to be submitted if and when it becomes evident that the project cost will exceed the original project authorization by more than five per cent and again if and when it becomes evident that the project cost will exceed by more than five per cent a subsequently approved increased project authorization. Submit five copies to Salem. After having been noted by the Deputy or Assistant State Highway Engineer, one copy will be sent to the Division Engineer and one copy to the Resident Engineer.

Submitted by _____ Resident Engineer

Confirmed by _____ Division Engineer

Noted by _____ Construction or Bridge Engineer

Noted by _____ Assistant Engineer State Highway Engineer

SP-2170-704

Principal reasons for overruns, Cont'd:

A poor, minimal drainage system at the South Canyonville Interchange which occasionally malfunctioned and caused water and silt to be carried into the City of Canyonville was worsened under this contract when well turfed slopes were disturbed upon installation of irrigation lines and planting areas were prepared. P.M. No. 4 will correct this situation.

Engineering overrun due to necessity of having an inspector present most of the time that the contractor worked plus the fact that a survey crew was utilized more than usual. Maintenance had indicated that more detailed "As Const." plans were needed for their maintenance of irrigation systems.

Routing

Morgan
Decker
Bond
Walker
Buehme
Johnsen

Pease
Swan
Glenn
Litchfield
Gallagher
Stein

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MAR 27 1970
CONSTRUCTION
DIVISION

Form E 23—414

STATE COPY C-12

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JAN 12 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-5-2(62)97
730

OREGON STATE HIGHWAY DEPARTMENT

APPROVED EFFECTIVE DATE 12/29/69
Contingent upon modification of project agreement if additional funds are required.
BY Dlinn K. Hosmer
TITLE Dist. Engineer
DATE Dec. 29 JAN 1970 19 69

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

U. S. BUREAU OF PUBLIC ROADS

Project Name N. & S. Canyonville & West Fork Interchl
Highway Pacific
County Douglas
Contractor All-City Landscape, Inc.
Address 29 N.E. 148th Ave., Portland, Oregon

Contract No. 7302
Prefix 610-1031
F. A. Project No. I-5-2(62)97
Order No. 2

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done: Install pipe down fill slope from median drain outfall and connect with catch inlet to be installed into 18-inch CMP at base of slope. Also provide a temporary drainage solution (ditching) until above can be completed.

Location by station numbers:
40+45 lt.

NOTED
F. B. KLABOE

Estimate of quantities and cost:

Labor	$250.00
Materials	100.00
Equipment rental	50.00
NET INCREASE IN PROJECT COST =	$400.00

(Maximum equipment rates allowable will be as per State-A.G.C. agreement).
(Percentage allowed contractor will be in accordance with executed contract for the project).

Explanation: (Explain here the conditions which cause this work to be classed as "extra work") The work was not anticipated nor covered by contract provisions. The temporary drainage work was done 12/24/69. Verbal approval from John Bond obtained 12/23/69.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$ 70,972.25
Present estimate of project cost, including $400.00 for work under this order	$ 70,972.25
Expected under-run / over-run amount	$ 0
Expected under-run / over-run per cent	0

Space to right of this line is for use of Salem Office

Submitted by: J. F. Hazelquist
Resident Engineer

Approval Recommended: E. Reed
Division Engineer

Approval Recommended: Richard Bond
Construction Engineer or Bridge Engineer

Approved: H. L. Coulter
Deputy State Highway Engineer, Assistant State Highway Engineer or Office Engineer.
For Construction

Rec'd 1104 Jan 1-13-70

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NOV 1 - 1969
OSHD
FOR FILING
Region
Wash DC

10-21-69

I-5-2(62)97

7102-8

FORM PR-33A (REV. 3-66)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

INITIAL INSPECTION REPORT

(Check Appropriate box) ☒ CONTACT ☐ PROJECT STAGE ☐ STATEWIDE INSPECTION-IN DEPTH

REGION NO.	REPORT NO.	COUNTY	DIVISION
	1	Douglas	Oregon
DATE OF INSPECTION	INSPECTION MADE BY		PROJECT NO.
10-21-69	W. N. Bryant, Area Engineer		I-5-2(62)97

IN COMPANY WITH
John R. Hagedorn, Res Engr, OSHD

LOCATION The northwest end of the project is near the north edge of the City of Canyonville. The southerly end is at the West Fork Interchange. The work is at 3 intermittent locations within this section of Interstate Hwy. 5.

CONTRACTOR NAME AND ADDRESS
All-City Landscape, Inc., Portland, Oregon

AWARD DATE	CONTRACT AMOUNT	TIME ALLOWED	TIME STARTED	WORK STARTED
9-2-69	59,184.50	*See remarks	9-30-69	9-30-69

QUALITY OF WORK	PROGRESS OF WORK	TIME ELAPSED	WORK COMPLETED
Satisfactory	*See remarks	41 %	6 %

ROADBED (Width _____ Feet O. to O. of shoulders)

STRUCTURES OVER 20-FOOT SPAN

TYPE	TYPE CODE NO.	NET LENGTH (Miles)	BASE-SURFACING THICKNESS EDGE (Inches)	BASE-SURFACING THICKNESS CENTER (Inches)	BASE-SURFACING WIDTH (Feet)	TYPE	TYPE CODE NO.	NET LENGTH (Miles)
Roadside Imp.	Y003	—	- -	—	—	—	—	—

REMARKS *(Report details of statewide inspection-in-depth on form PR-33D)

NORTH AND SOUTH CANYONVILLE & WEST FORK INTERCHANGES
PACIFIC HIGHWAY
Roadside Improvement

Work to be completed under this project consists of furnishing and placing 2000 CY of topsoil, furnishing and planting trees (69), shrubs (1450), and vines (22,500), and the installation of irrigation systems.

Completed Work

Trenching for irrigation system	35% complete
Pipe laid (not backfilled)	20%
Topsoil hauled	90%
Topsoil spread	20%
Irrigation system	15%

(more)

NOTED
R. L. PORTER

10-30-69

REPLACES PR-33A(1) REV. 5-64, WHICH WILL NOT BE USED

Work in Progress

Three trucks hauling topsoil from a source on Gazley Road (3+ mile haul). One blade and truck mounted front-end loader spreading topsoil at the West Fork Interchange. Foreman and several laborers installing irrigation pipeline at the North Canyonville Interchange.

Remarks and Recommendations

A preconstruction conference was held on 9-29-69 at which time all contract requirements including EEO requirements were discussed. The contractor has designated Clifford H. Paul as the company EEO officer.

*Time Allowed

The special provisions provide that all work, except lawn construction, is to be completed not later than December 31, 1969 and that all work under the contract is to be completed not later than May 31, 1970.

*Progress of Work

While the time elapsed exceeds the work completed by a substantial amount the overall progress of the work is considered satisfactory since the major work involved, planting of trees, shrubs, and vines, cannot begin until after the irrigation system has been installed. All work except planting of the lawn is expected to be completed by December 31, 1969.

Changes

A price agreement covering the raising of three catch basins is being prepared by the resident engineer. This work is considered necessary in order to properly drain the areas without excessive erosion of topsoil.

Signs and Posters

The required signs and posters have been installed as required.

Linear Measurements

The pipe size and depth of installation for the irrigation system was checked in several areas of the North Canyonville Interchange and found to be substantially as planned.

Materials

All materials incorporated into the work to date are in reasonably close conformity with the plans and specifications.

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OCT 30 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 8 - 1969
FOR FILING

I-5-2(62)97
7302

September 8, 1969

All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

Enclosed are three copies of Contract No. 7302 for $59,184.50 awarded to you by the State Highway Commission on September 2, 1969. This contract is for roadside improvement on the N. and S. Canyonville and West Fork Interchanges Section of the Pacific Highway in Douglas County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The final completion date on this contract is May 31, 1970.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cc
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Geibel (SAIF)
C. T. Kenney
John Hagedorn
Ray Olson

RECEIVED
AUG 11 1969
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

8-6-69

FOR FILING

LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT: I-5-2(62)97

SECTION: N & S CANYONVILLE & WEST FORK INTERCHANGES

I-5-2(62)97

TO: MR. FOREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

1302

WORK : ROADSIDE IMPROVEMENT

COUNTY : DOUGLAS

FROM: R. E. SIMPSON, DIVISION ENGINEER
SALEM, OREGON

DATE PS&E APPROVED: AUGUST 6, 1969

DATE AUTHORIZED: AUGUST 6, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

(X) CONSTRUCTION — ADVERTISE FOR BIDS.

( ) RIGHT OF WAY.

(X) OTHER (SPECIFY). AFTER AWARD CONCURRENCE YOU ARE AUTHORIZED TO PROCEED WITH CONTRATOR'S FLAGGING IN AMOUNT OF $50.00; INSTALLATION OF TWO 2" WATER METERS IN AMOUNT OF $1,050.00 AND IRRIGATION WATER IN AMOUNT OF $1,700.00 AS SHOWN IN YOUR ESTIMATE.

( ) UTILITY ADJUSTMENT.

( ) RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. YOUNG'S AUGUST 5, 1969 REQUEST AND CERTIFYING STATEMENTS ARE ACCEPTED.

PS&E DOCUMENTS FOR THE SUBJECT PROJECT HAVE BEEN REVIEWED AND ARE HEREBY APPROVED.

A SIGNED COPY OF THE TITLE SHEET IS RETURNED HEREWITH.

8-8-69

OFFICE USE

Young
Wlenc.

RECEIVED
AUG 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
8-6-69	R. E. SIMPSON	DIVISION ENGINEER

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JUL 31 1969
FOR FILING
I-5-2(62) 97
7302

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 30, 1969

SUBJECT: Utility Status Report for
August 28, 1969 Letting

To: Mr. L. H. Young
Program & Planning Engineer
BUILDING

The status of negotiations with utilities on FAI projects for this letting are as follows:

1. N. & S. CANYONVILLE INTERCHANGE AND W. FORK INTERCHANGE

Project No. I-5-2 (62) 97 Roadside Improvement

No utilities involved.

2. SPEAKER RD., WOLF CR. AND SUNNY VALLEY INTERCHANGES

Project No. I-5-2 (63) 73 Roadside Improvement

No utilities involved.

I certify that to the best of my knowledge the above statements are correct in regard to utility negotiations for the projects scheduled for contract on August 28, 1969.

F. D. Morgan
Construction Engineer

By: T. W. Litchfield

T. W. Litchfield
Utilities Liaison Engineer

JMC:ss

cc: F. B. Klaboe
D. J. Barbee
V. E. Skoog
D. H. Moehring
C. G. Swenson
L. H. Young (3)

RECEIVED
JUL 30 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RANSACTION NOS. 7-54 AND 7-55

FORM PR-48
(REV. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: OREGON

DATE: 7-25-69

BY (Signature): MR. YOUNG'S JULY 15, 1969 LETTER

TITLE:

CLASS OF FEDERAL FUNDS: ☒ FAI ☐ FAP ☐ FAU ☐ FAS ☐ OTHERS

STAGE 1 *
ITEM NOS. _____ THRU _____

STAGE 2
ITEM NOS. 588 THRU 589

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS	LOCATION	WORK
8	I-5-2(62)97	0.0	95,000	87,400	NORTH & SOUTH CANYONVILLE AND WEST FORK INTERCHANGES	LANDSCAPING
9	I-5-2(63)73	0.0	100,000	92,000	SPEAKER ROAD; WOLF CREEK AND SUNNY VALLEY INTERCHANGES	LANDSCAPING

OTHER IDENTIFICATION AND/OR REMARKS (State)

Young 7-31-69

REMARKS (Division)

FOR FILING

I-5-2(62)97
7302

RECEIVED
JUL 31 1969

RECEIVED
JUL 28 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	RECOMMENDED SIGNATURE AND TITLE	DATE	APPROVED SIGNATURE AND TITLE
		JULY 25, 1969	FOR DIVISION ENGINEER

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-954

RECEIVED
JUL 21 1969
GAME
COMMISSION

I 5-2(62)97

OFFICE OF THE DIRECTOR

7302

P.O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

July 18, 1969

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
J. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

cc's sent 7-22-69

F.B. Klaboe
L.H. Young
F.E. Terpin (5)
T.C. Roake (5)
C.G. Swenson
W.H. Tebeau
A.E. Johnson (2)
C.T. Keasey (4)
H.S. Coulter (4)

State Highway Engineer
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

This is in reply to your letter of July 7, 1969, which included plans for five projects.

A review of these projects indicate that there will be no conflict with wildlife resources.

The following projects are approved:

1. East Fremont Interchange Section Stadium Freeway, Multnomah County

2. North and South Canyonville and West Fork Interchanges Pacific Highway, Douglas County

3. Speaker Road, Wolf Creek and Sunny Valley Interchanges Pacific Highway, Josephine County

4. N.W. 4th Avenue-Arcata Way Section FAS 23-103, Malheur County

5. Barth Crossing-U.S. 30 Connection Section FAS 470, Umatilla County.

We appreciate the opportunity to comment on these projects.

Very truly yours,

R. O. Koski

R. O. Koski
Chief of Liberations

RECEIVED
JUL 23 1969
OFFICE OF
STATE HIGHWAY ENGINEER

ROK:js

cc: Dir. OFC

RECEIVED
JUL 22 1969

UNITED STATES GOVERNMENT

FOR

Memorandum

I-5-2(62)97

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7302

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308
DATE: July 15, 1969

In reply refer to: 08-35-EC/500

SUBJECT: Oregon Project I-5-2( ) 97
N & S Canyonville Int. & W. Fork Int.
Pacific Highway - Douglas County
Roadside Improvement

I concur that the subject roadside improvement is work incidental to projects previously completed. The design concept of landscaping selected interchanges and sections of highway was previously approved and therefore paragraph 10 of PPM 20-8 would not be applicable to such work.

BY Young
ASST. STATE HWY. ENGR

7-18

NO
F. B.

RECEIVED
JUL 16 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

FEDERAL-AID PR

(PPM 2

| | | |

Budget Bureau No. 41-R2067; Approval Expires February 28, 19

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
	ADT	5,900	13,000	89	08	Oregon	35	042	588
(65)			(66)	(70) (71) (72)			(2) (3)	(4) (9)	(14)

SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	I. Projects Only POST MI.	DESIG.
(68) (69)	(70)	(71)	(72) (73)	(74) (75)	14 I- 23	5-2(62) 7	13	24 97 (26)	

COUNTY NAME: Douglas — CODE: 019 (14) (16)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO. I — FEDERAL-AID: I-5 (32) — STATE (36) (37) — U.S.: I-5 (41)

ESTIMATED PROJECT COST BY PHASES

MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
(54) (58)	(59) (66)	(67) (76)			
					Landscaping consisting of planting trees, shrubs & vines, topsoiling, lawn construction & irrigation system
0.0	95,000	87,400	7,600		ROW - 300' min.; access control- ful parking restriction complete
0.0	95,000	87,400	7 7,600		
	(16) (23)	(24) (33)			

REMARKS

Additional data: Item 391, Project I-5-2(46)96.

(over)

USCOMM DUSCOMM-DC 48908-1

Remarks continued:

Information for PR 37-B: - RW-1, ROW-F, Sanitary facilities-N.

The project consists of landscaping the North and South Canyonville Interchanges and the West Fork Interchange.

Public hearings not required under the provisions of paragraph 6c of PPM 20-8.

This project is considered stage construction of this section of I-5 and design approval other than P.S. & E. authorization to advertise is considered to have been given under Project I-5-2(46)96.

RECEIVED
STATE GOVERNMENT
MAR 13 1969

Memorandum

FOR FILE

I-5-2(42)87

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7302

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: March 13, 1969

In reply refer to: 08-35-EC/400.1

copy 'No' Hearing file

SUBJECT: Public Hearing Requirements

We concur that hearings are not required for the following projects under the provisions of paragraph 6c of PPM 20-8:

I-80N-2(42)39, Multnomah County Line-East Cascade Locks Section
Columbia River Highway, Hood River County
Work: Pavement Seal

I-5-3( )145, Cabin Creek Safety Rest Area
Pacific Highway, Douglas County
Work: Water System (Installation of)

I-80N-6( )252, Hilgard-Perry Section
Old Oregon Trail Highway, Union County
Work: Fencing (along Scenic Strip)

I-5-2( )69, N. & S. Canyonville Interchanges & W. Fork Interchange
Pacific Highway, Douglas County
Work: Roadside Improvement

I-5-2( )72, Speaker Road, Wolf Creek & Sunny Valley Interchanges
Pacific Highway, Josephine County
Work: Roadside Improvement

I-5-4( )235, Dever Road-N. Albany Interchange Section
Pacific Highway, Linn County
Work: Roadside Improvement

3-17-69

RECEIVED
MAR 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F. E. KLABOE

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

S-12-104(1) Miller Ranch-Wickiup Forest 1969
Camp Sec., of FAS-12-104, S. of
#7303 Canyon City (Oil. & stone base)

Grant Co.
FAS 12-104

October 10, 1972

Grant County Court
Courthouse
Canyon City, Oregon 97820

7303

Attn: Hon. Rho Bleakman
County Judge

Gentlemen:

Final costs, as shown in the enclosed cost statement, are now available on:

Miller Ranch-Wicklup Forest Camp Section
FAS 12-104

In accordance with an agreement dated August 20, 1968, the amount of $23,493.74 is due the County. You will receive a refund in this amount.

Very truly yours,

George M. Baldwin
Administrator of Highways

By

H. S. Cox
for County and City Engineer

HR:ljt

Encl.

Fed funds: $290,241.74

[V] [V] [V] [

STATE COPY

FORM PR-33C
(REV. 3-68)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

cc: OERD (Young)
FOR [illegible]
Region
Wash DC

5-10-72

cat

FINAL INSPECTION AND ACCEPTANCE OF FEDERAL-AID PROJECT CONSTRUCTED UNDER 1954 SECONDARY ROAD PLAN

(PPMs 20-5 and 20-6.1)

7303

INSTRUCTIONS - Submit original and 3 copies to the Public Roads Division Office

NOTICE OF COMPLETION AND ACCEPTANCE BY STATE HIGHWAY DEPARTMENT

COPY SENT

MAY 11 1972

SIGNATURE

TITLE L. H. Young

BUREAU OF PUBLIC ROADS INSPECTION MADE BY REGIONAL OFFICE

IN COMPANY WITH

CONTRACTOR'S NAME C. O. Fredericksen, Reg Br Engr

T. E. McEwen Const. Co.

STATE Oregon

REGION NO. 10

COUNTY Grant

PROJECT NO. S-12-104(1)

DATE OF INSPECTION 7/14/70

CONTRACT AMOUNT $ 470,212.00

DESCRIPTION OF IMPROVEMENT AS PROGRAMED

The project work included producing and placing a base and asphalt surface on a previously prepared roadway.

5-15-72
REFERRED TO
BY COUNTY STATE

IMPROVEMENT AS CONSTRUCTED

ROADBED (Width 28 foot)

STRUCTURES OVER 20-FOOT SPAN

TYPE CODE NUMBER	NET LENGTH (Miles)	BASE SURFACING WIDTH (Feet)	TYPE CODE NUMBER	NET LENGTH (Miles)
5231	7.281	28		

NOTED
F. B. MARBOE

REMARKS: *The project has been completed in apparent conformity with the state standards and procedures approved in accordance with the 1954 secondary road plan.*

MILLER RANCH-WICKIUP FOREST CAMP SECTION
FAS 12-104

cc Const.
5-16-72

The contract was awarded September 10, 1969. The contract time was started September 22, 1969.

The contract work started October 6, 1969, and completed in June 5, 1970. One hundred sixty-seven of the 220 calendar workdays which was allowed were used.

The final contract costs were $405,110.85, 13.8% under the original bid.

(more)

NOTED
A. E. JOHNSON

NOTED
TOM EDWARDS

ACCEPTANCE OF PROJECT IS RECOMMENDED

SIGNATURE

R. A. Nichols

TITLE Area Engineer

DATE 5/3/72

ACCEPTED BY BUREAU OF PUBLIC ROADS

SIGNATURE

R. E. Simpson

TITLE Division Engineer

DATE 5/10/72

PREVIOUS EDITIONS MAY BE USED UNTIL SUPPLY IS EXHAUSTED

The major overruns and underruns are explained satisfactorily in the Resident Engineer's "Statement of Overruns and Underruns". A copy of this and the State's Material Certification are in the Oregon Division files.

The project was inspected on July 14, 1970. The contract work was completed satisfactorily at that time, however, there were several deficiencies in the portion of the roadwork performed by the County. The correction of these deficiencies have been satisfactorily resolved.

The State has extended the short culverts. The county has put a guardrail on the structure this spring and stated they would flatten the slopes as they maintain the road.

RECEIVED
MAY 12 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAR 2 - 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

7303

HIGHWAY BUILDING • SALEM, OREGON • 97310

February 29, 1972

Mr. R. E. Simpson, Division Engineer
P.O. Box 300
477 Cottage Street N.E.
Salem, Oregon 97308

Dear Mr. Simpson:

In response to your letter of October 7, 1970 and the project report on Miller Ranch-Wickiup Forest Camp Section, the County people were contacted and apprised of project complaints as outlined in Mr. Nichols' report.

February 23, 1972, the writer accompanied by Mr. Hillery Stout, Grant County Roadmaster, inspected the above named project and it was noted that at the intersection with U.S. 395, the culvert has been extended by 8 feet and the intersection widened a like amount.

Rails have been attached to the Canyon Creek structure.

The deep ditches and steep side slopes will be relieved under maintenance.

Mr. Stout stated that the guardrail and culvert were installed last fall, and he has assured this office that all maintenance work will be directed toward improvement of the project.

Very truly yours,

George M. Baldwin
Administrator of Highways

By

H. S. Cox
County and City Engineer

NOTED
R. L. SCHROEDER

HSC:mm
cc: Tom Edwards
R. L. Schroeder
W. E. Schwartz
F. D. Morgan
Paul Hatcher

RECEIVED
FEB 29 1972
OFFICE OF
STATE HIGHWAY ENGINEER

OCT 29 1970
ENGINEERING
5-12-104(.)
7303

120

October 27, 1970

Mr. R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Dear Sir:

Re: Miller Ranch-Wickiup Forest
Camp Section, FAS 12-104
Grant County
Your Ref. 08-35-BA

We have reviewed your October 7 memorandum concerning the inspection of the subject project (our Contract No. 7303) and in line with your request, offer the following comments.

It is noted that the only objection to work under this contract relates to the unsightly scar left by the development and use of the private quarry which is visible from Highway US395. We were aware of the blemish on the landscape that this quarry left and at the time of cleanup requested the contractor to make the appearance more presentable. The contractor did spend considerable time in sloping, burying boulders, and cleanup of the area, but we agree that an unsightly scar remains.

Because of this and similar situations, as well as the present concerted effort by the State to eliminate unsightliness due to highway construction, we are again reviewing our present specifications with the help of our legal staff to determine if more stringent requirements are feasible to improve situations in quarries and material sources.

As for the other conditions noted in your memorandum, they are things which occurred on the grading work done by the County. In order to attempt to improve the short culvert situation, the deep ditches, and lack of guardrail at the box

NOTED
A. E. JOHNSON

culvert, our County and City people, as well as Region personnel, will shortly contact the County officials and request that these items be corrected.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. H. Johnson
Assistant State Highway Engineer

cc R. L. Porter
Tom Edwards
F. D. Morgan
H. S. Cox
C. G. Swanson
L. I. Linden
H. S. Coulter/att

JHJ:fw ms

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

DATE: October 7, 1970

In reply refer to: 08-35-DA

FROM : for R. E. Simpson, Division Engineer
Salem, Oregon

Informal
cy. Fhwa
10-9-70

SUBJECT: Oregon S-12-104(1)
Miller Ranch - Wickiup Forest Camp Section
FAS Route 12-104
Grant County

The above project was inspected on July 14, 1970 by Mr. C. O. Fredrickson, Assistant Division Engineer, OSHD, and Mr. R. A. Nichols, Area Engineer, FHWA.

The project was satisfactory except for several items covered in the attached report by the Area Engineer. Would you please review this report and advise what corrective measures could be undertaken.

Enclosure

Routing

Morgan
Decker
Bond
Walker
Boehme
Johnsen

RECEIVED
OCT 12 1970
CONSTRUCTION DIVISION

Peese
Swan
Glenn
Litchfield
Gallagher
Stein

RECEIVED
OCT 9 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Box 369
Salem OR 97308

Mr. R. E. Simpson, Division Engineer

October 7, 1970

R. A. Nichols, Area Engineer

Oregon S-12-104(1)
Miller Ranch-Wickiup Forest Camp Section
FAS Route 12-104
Grant County

The above project was inspected on July 14, 1970 by Mr. C. O. Fredrickson, Assistant Division Engineer, OSHD, and Mr. R. A. Nichols, Area Engineer, FHWA.

The work for which the contractor was responsible was satisfactory except for the condition of the quarry site. The quarry was developed so that it left a very unsightly scar fully visable to the south bound traffic on US 395. The quarry is on private land but every effort should be made to reduce the impact of the scar.

Other conditions noticed during the inspection were short culverts, steep shoulder and fill slopes and a narrow box culvert.

One short culvert was located at the intersection with US 395. The slope from the edge of the road to the end of the culvert is very steep. The drivers are cutting this corner so their vehicles are very close to the end of the road. If one should misjudge just a little there would probably be a serious accident. The danger could be allevisted by extending the culvert and flattening the slope. Other culverts were short but not as hazardous as this one.

Apparently the road bed was so narrow it was not possible to obtain both the 28 foot wide oil mat and 3:1 slopes on the base as shown on the plans. Therefore, the slopes were steepened to get the width. This has resulted in two unsatisfactory conditions. There is little lateral support for the edges of the oil mat but more important the steep slopes constitute a traffic hazard in that there is virtually no chance of recovery if a driver gets even one wheel off the oil mat. The steep slopes were not as critical on the original road because speeds were slower on the poorer alignment and gravel surfacing, but now the road has been improved so that speeds in excess of 50 MPH can be attained with little difficulty. At such speeds the driver has little margin for error on the comparatively narrow road. This margin is reduced by the steep slopes.

(more)

It would be desirable to flatten all the slopes, however, this is not feasible at this time but many of the hazardous areas could be corrected inexpensively. These are the steep and generally deep ditches adjacent to the hillside. These ditches could be flattened without adversely effecting the drainage.

The roadway width of the box culvert carrying Canyon Creek under the road is about 28 feet, the width of the oil mat. There are no rails on this structure now but there are bolts on the ends of the structure indicating there were rails at one time. The rails are definitely needed now. They should comply with the present design requirements except the approach rail could be shortened and anchor eliminated, due to the low volume of traffic.

eb

BMW:fw

Form E-321 (Rev. 4-67)

Div. Engr. H. S. Coulter
Res. Engr. L. V. Blickenstaff

10 - FINAL

Final Estimate Release

7-30-70

STATE OF OREGON—HIGHWAY DEPARTMENT

Job Miller Ranch-Wickiup Forest Camp County Grant

Highway FAS 12-104 Type of Work Stone Base and Oiling

Contractor F. H. McEwen Construction Co.

Award Date 9-10-69 Prefix 512-1044 FAP S-12-104(1) Contract No. 7303

Specified Completion 220 CWD Work Completed 6-5-70 Days Used 167

Time Extension Approved - To - Penalty Days None

Accepted by Commission 7-13-70 Date of Final Voucher 7-7-70 Checked Cost Books 7-3-70

EXPENDITURE AUTHORIZATIONS		EXPENDITURES TO DATE		EXPENDITURES TO COMPLETE	
Contract Amount	$470,217.00	Paid Contractor	$314,588.80		
		Est. #8	68,383.81		
		S.F. Est.	1,055.26		
Anticipated Items	1,000.00	Fnal Estimate	23,484.65		
Subsequent Authorizations	-	Total	$407,512.52		
Contingency Allowance	21,204.76	Add for Deductions	-		
Contract Cost	$492,421.76	Contract Cost	$407,512.52		
Engineering	42,409.53	Engineering	43,190.10	Engineering	$ 1,797.38
State Force	-	State Force	-	State Force	-
				Subtotal	$ 1,797.38
Total	$534,831.29	Total	$450,702.62	Total	$452,500.00
		(a) Deductions	-		
		(b) Credits	-		
Total Original Authorization	$534,831.29	Expended to Date	$450,702.62	Anticipated Final Cost	$452,500.00 (- 15.4%)

Deduction Items:

PRICE AGREEMENTS, EXTRA WORK AND STATE FORCE ITEMS

Order No.	Date	Description of Work	Authorized	Est Final Cost
		ANTICIPATED ITEMS		
EW 2	10-10-69	Flagging (1,000)	1,000.00	1,450.83
		CONTINGENCY ITEMS		
PA 1	10-21-69	Grid Rolled Matl. in Base	308,000.00	-
2	12-12-69	Grid Rolled Matl. in Base Reduced Price	253,500.00	215,525.12
3	4-10-70	Extra for Oiled Connections	450.00	450.00
4	5-22-70	Doc. Raising Road Approach	-	-
EW 1	10-10-69	Slide Removal	1,300.00	527.04

STATE OF OREGON—HIGHWAY DEPARTMENT

Job Miller Ranch-Wickiup Forest Camp County Grant

Highway FAS 12-104 Type of Work Stone Base and Oiling

Contractor F. H. McEwen Construction Co.

Award Date 9-10-69 Prefix 512-1044 FAP S-12-104(1) Contract No. 7303

Specified Completion 220 CWD Work Completed 6-5-70 Days Used 167

Time Extension Approved - To - Penalty Days None

Accepted by Commission 7-13-70 Date of Final Voucher 7-7-70 Checked Cost Books 7-3-70

EXPENDITURE AUTHORIZATIONS		EXPENDITURES TO DATE		EXPENDITURES TO COMPLETE	
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		Est. #8	68,383.81		
		S.F. Est.	1,055.26		
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Contingency Allowance	21,204.76	Add for Deductions	-		
Contract Cost	$492,421.76	Contract Cost	$407,512.52		
Engineering	42,409.53	Engineering	43,190.10	Engineering	$ 1,797.38
State Force	-	State Force	-	State Force	-
				Subtotal	$ 1,797.38
Total	$534,831.29	Total	$450,702.62	Total	$452,500.00
		(a) Deductions	-		
		(b) Credits	-		
Total Original Authorization	$534,831.29	Expended to Date	$450,702.62	Anticipated Final Cost	$452,500.00 (- 15.4%)

Deduction Items:

PRICE AGREEMENTS, EXTRA WORK AND STATE FORCE ITEMS

Order No.	Date	Description of Work	Authorized	Est Final Cost
		ANTICIPATED ITEMS		
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		CONTINGENCY ITEMS		
PA 1	10-21-69	Grid Rolled Matl. in Base	308,000.00	-
2	12-12-69	Grid Rolled Matl. in Base Reduced Price	253,500.00	215,525.12
3	4-10-70	Extra for Oiled Connections	450.00	450.00
4	5-22-70	Doc. Raising Road Approach	-	-
EW 1	10-10-69	Slide Removal	1,300.00	527.04

for Construction Engineer [signature] Date July 29, 19 70

Deputy or Assistant State Highway Engineer [signature] Date 7/30/70 19

SP*20734-734

RECEIVED
JUL 28 1970
FILES ROOM

5-12-104(1)
7303

July 28, 1970

United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, Washington 98401

Gentlemen:

On July 14, 1970, we wrote to you concerning release of final payment on Contract No. 7303 awarded to F. H. McEwen Construction Company for stone base and oiling on the Miller Ranch-Wickiup Forest Camp Section of FAS 12-104 in Grant County.

Final payment on this contract is $23,484.65 and the total contract amount is $407,512.52 including $1,977.87 for work performed under force account.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

sss

cc F. H. McEwen Constr. Co.
Route 7, Box 97A
Eugene, Oregon 97405

bcc F. D. Morgan
I. D. Merchant
V. E. Skoog
Attn: John Herr
H. S. Coulter

RECEIVED
JUL 15 1970
FOR FILING

S-12-104( )
7303

July 14, 1970

United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, Washington 98401

Gentlemen:

Contract No. 7303 awarded to F. H. McEwen Construction Company for stone base and oiling on the Miller Ranch-Wickiup Forest Camp Section of FAS 12-104 in Grant County, was completed June 5, 1970, and accepted by the Highway Commission on July 13, 1970.

Final payment will be released to the contractor as soon as payment processing can be completed, but not before July 21, 1970.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

sss

cc F. H. McEwen Constr. Co.
Route 7, Box 97A
Eugene, Oregon 97405

bcc F. D. Morgan
I. D. Merchant
V. E. Skeeg
Attn: John Herr
H. S. Coulter

RECEIVED
JUL 14 1970
FOR FILING

S-12-104(1)
7303

July 13, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed June 5, 1970, on Contract No. 7303. The contract was with F. H. McElven Construction Company and was for stone base and oiling on the Hiller Ranch-Wickiup Forest Camp Section (FAS 12-104) in Grant County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective July 13, 1970, and that you concur in this procedure at the Commission meeting on August 18, 1970.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Query
Tom Edwards
Victor D. Wolfe
A. E. Johnson
Ivan Merchant
F. D. Morgan
V. E. Skoog
L. H. Young
H. S. Coulter

ms sv

GRANT COUNTY
CANYON CITY, OREGON
June 26, 1970

Mr. L. Blinckenstaff
1705 Oak
Baker, Oregon

Dear Mr. Blinckenstaff:

The County Court hereby accepts the Miller Ranch-Wickiup Forest Camp Section Road FAS 12-104.

Grant County Court

By Phil Blackman
County Judge

NOTED
H. S. COX

RFB:J

NOTED
HAROLD REYNOLDSON

RECEIVED
JUL 2 - 1970
ENGINEER
COUNTY & CITY DIVISION

NOTED
MAINOR C. HOLMES

cc - County & City Construction

RECEIVED
JUN 29 1970
L. V. BLICKENSTAFF
RES. ENGINEER

NOTED
R. H. PRANGE
Noted
Oscar H. Norberg

NOTED
RICHARD BLADORN

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
DON HARWELL

S-12-104(1)
7303

FORM S-1 (REV. 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Miller Ranch-Wickiup Forest Camp		WEEK ENDING: June 12, 1970
		SECTION PREFIX: 512-1044
HIGHWAY: FAS 12-104		COUNTY: Grant
NAME OF JOB: Miller Ranch-Wickiup Forest Camp	KIND OF WORK: Stone Base & Oiling	
CONTRACTOR: F. H. McEwen Construction Co.	CONTRACT NUMBER: 7303	FEDERAL AID PROJECT NUMBER: S-12-104(1)
DATE OF CONTRACT: Sept. 10, 1969	DATE WORK STARTED: Oct. 6, 1969	ESTIMATED COMPLETION DATE: Completed
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 2 SUPERVISION: 1	SPECIFIED WORK DAYS: work SPECIFIED CALENDAR DAYS: 220	WORK DAYS USED: work CALENDAR DAYS USED: 167
	SPECIFIED COMPLETION DATE:	PERCENT OF TIME ELAPSED: 76
PROJECT AUTHORIZATION: $534,831.29	ENGINEERING AUTHORIZATION: $42,409.53 This week 110.00	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $492,421.76	ENGINEERING COST TO DATE: $43,760.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 83
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $402,390.00		DATE PROJECT WAS COMPLETED: June 5, 1970
ESTIMATED PERCENT: OVERRUN / UNDERRUN: under 17 %	PERCENT OF AUTHORIZATION: 103 %	

Semi-final estimate about June 20

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE: 100	OIL AND/OR PAVE.: 100	MAT'L. PROD.		
			GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT				7.28		7.28	
MILES PARTIALLY COMPLETED							
MILES COMPLETED				7.28		7.28	
TOTAL ESTIMATED QUANTITIES (CONTRACT)				177,600		7420Cy 795T	
TOTAL QUANTITIES CORRECTED TO DATE				149,131		7942Cy 696T	
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE				149,131		7942Cy 696T	
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT							

EQUIPMENT USED DURING THE WEEK:

1 Truck & drag broom.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY				
MONDAY	Overcast			
TUESDAY	"			
WEDNESDAY	"			
THURSDAY	"			
FRIDAY	"			
SATURDAY				

Routing

Morse — Please E
Decker — Swan
Bond — Glenn
Walker — Litchfield
Boehme — Gallagher
Johnsen 50 — Stein

RECEIVED
JUN 15 1970
CONSTRUCTION DIVISION

BEN CLIFFORD

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	The contractor broomed the oil mat.
TUESDAY	No activity
WEDNESDAY	No activity.
THURSDAY	No activity by the contractor. I went over the job with Mr. Shirley.
FRIDAY	The contractor broomed the oil mat which completed his obligations.
SATURDAY	

REMARKS

This project is complete. Mr. Shirley inspected the job Thursday. The semi-final estimate will be submitted about June 20.

SIGNED R. Blickenstaff LOCATION Baker

PRIME RESIDENT SUBMIT 3 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

1 80-F216

Section Miller Ranch-Wickiup Forest Camp
Highway FAS 12-104
Contract No. 7303
F.A. Proj. No. S-12-104(1) June 5 1970

Contract Completed _____

Engineering Expended _____

June 5 Job Completed

PER CENT

100
80
60
40
20
0

10 20 30 40 50 60 70 80 90 100

TIME

FAS 12-104
Grant County

10-23-69

Mr. H. S. Cox
County and City Engineer
Oregon State Highway Department
Salem, Oregon 97310

RE: Encumbrances of Future Anticipated
Federal Allocations of FAS Funds

Dear Sir:

Grant County hereby requests an advance on its anticipated future Federal allocation of FAS funds in the amount of $130,000.00. This is the estimated additional fund needed by Grant County for the Miller Ranch-Wickiup Forest Camp Section on Canyon Creek County Road, FAS 12-104. Since Grant County's annual Federal allocation is approximately $43,504.00, this represents all or a portion of its funds for the fiscal years 1971, 1972 and 1973, and these funds will be replaced by the allocations to the County for these same fiscal years.

This request is in accordance with the agreement which was approved by the Association of Oregon Counties' Board of Directors at their meeting of August 15, 1969, and approved by the Highway Commission at their November 18, 1969, meeting. By this agreement, county Federal allocations became a revolving fund and permits any county to encumber its future anticipated Federal allocations for three years or less. It is also understood that each county must clear up all encumbrances of its FAS allocations before additional allocations can be advanced. Be it further remembered that no advancement on future anticipated Federal allocations can be honored until all present available allocations have been expended.

This request was signed at a duly authorized session of the Grant County Court/~~Board of Commissioners~~ at Canyon City, Oregon, on Oct 23, 1969.

NOTED
HAROLD REYNOLDSON

RECEIVED
OCT 24 1969
ENGINEER
COUNTY & CITY DIVISION

Grant County, by and through its County Court/~~Board of Commissioners~~

By Pho Bleakman
Judge/~~Chairman~~

By _____
Commissioner

By Jno W Offstein
Commissioner

NOTED
H. S. COX

NOTED
DON HARWELL

STATE COPY

Form Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-43		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT (PPM 21-7) 7-17-67	COUNTY Grant
3		PROJECT NO. FAS-12-104 (1)

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

Miller Ranch-Wickiup Forest Camp Section

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	8-6-69	7.281
OTHER (Specify)		

FUNDS Pro Rata 63.54%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 517,338	$ 328,700.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By J. R. Kuber

Assistant State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By L. L. Greene
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer SEP 19 1969

Oregon State Highway Division

Federal-Aid
Project No. S-12-104(1)

MILLER RANCH-WICKIUP FOREST CAMP SECTION

FAS 12-104 IN GRANT COUNTY

Project Agreement Estimate.

Salem, Oregon, September 12, 1969

Type Code 5231
Roadway (Sta. 0+00 thru Equa. 278+28.10 Bk. = 288+28.10 Ah. to Sta. 394+42.03)
(Contract No. 7303)

Furnish Field Laboratory Building	1 only	$1,000.00	$ 1,000.00
Temporary Protection and Direction of Traffic	All Required		4,000.00
Watering	1,360 M-gal.	3.00	4,080.00
Preparation of Old Roadbed	7.28 mile	1,000.00	7,280.00
3/4" - 0 Material in Base	23,600 ton	2.62	61,832.00
8" - 0 Grid-Rolled Material in Base	154,000 ton	2.00	308,000.00
3/4" - 0 Aggregate in Prime Coat	980 cu.yd.	5.00	4,900.00
MC-250 Asphalt in Prime Coat	180 ton	53.00	9,540.00
Aggregate in Asphalt Macadam	6,440 cu.yd.	6.00	38,640.00
120-150 Asphalt in Asphalt Macadam	480 ton	49.00	23,520.00
Asphalt in Seal Coat	135 ton	55.00	7,425.00
			$470,217.00
Flagging (60% of Contractor's Cost)	All Required		$ 1,000.00
	Subtotal		$471,217.00
	*10% Engr. & Cont.		46,121.00
	Total		$517,338.00

*Reduced in accordance with Par. 5 (Project Field Offices) of PPM 30-6.

Length of Project - - - - - - - 7.281 Miles
Cost of Roadway Per Mile- - - $71,053.15

SUMMARY OF FUNDS

Federal Funds -	$328,700.00
State Funds -	94,319.00
County Funds- -	94,319.00
Total	$517,338.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1-100%

Prefix: 512-1044

OREGON STATE HIGHWAY DEPARTMENT

FORM A-150 (8-66)

HIGHWAY DEPARTMENT INVOICE

NO. 99817

DATE	BILLING REQ. NO.	YOUR ORDER NO.
9-16-69	CC 1199	

CREDIT DISTRIBUTION

512-1041-797

Grant County
Grant County Court
Courthouse
Canyon City, Oregon 97820

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DEPARTMENT

SEND REMITTANCE TO:
OREGON STATE HIGHWAY DEPARTMENT
STATE HIGHWAY BUILDING
SALEM, OREGON 97310

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Attention: Hon. Rho Hleahman			
Advance Deposit			106,966.96
Partial transfer of the advance deposit for the Miller Ranch-Wieldup Forest Camp Section, Canyon City Road, FAS 17-1Ch, covered by agreement dated August 20, 1968.			86,966.96
To be retained			20,000.00

RECEIVED
SEP 17 1969
ENGINEER
COUNTY & CITY DIVISION

ACKNOWLEDGMENT OF BILLING REQUEST

Cash Received with Request: $----------

By ----------

NOTED
MAINOR C. HOLMES

NOTED
P. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

RECEIVED
NOV 1 - 1969
FOR FILING

5-12-104(4)
7303

September 10, 1969

Bid Aug 28

F. H. Mathews Construction Co.
Route 7, Box 97A
Eugene, Oregon 97405

Gentlemen:

The State Highway Commission on September 2, 1969, accepted your proposal for stone base and oiling in the Miller Ranch-Wickiup Forest Camp on FAS 12-104 in Grant County for the sum of $470,217 and referred it to the State Highway Engineer with authority to award the contract as soon as approval of Grant County was received and the sum of $107,000 was deposited by the County.

These conditions were fulfilled and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7303.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar workday count on this contract will begin September 22, 1969.

Very truly yours,

Floyd Cassry, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Geibel (SAIF)
H. S. Coulter
L. V. Blickenstaff
David Talbot

RECEIVED
SEP 3 - 1969

MISC. CONTRACTS and AGREEMENTS No. 3771

August 26, 1969

Grant County Court
Courthouse
Canyon City, Oregon 97820

Attention: Mr. John Liveira
County Clerk

Gentlemen:

Attached for your files is a fully executed copy of an agreement covering Miller Ranch-Wicking Forest Camp Section of FAS 12-104 (Canyon Creek Road).

A fully executed copy of this agreement has been retained for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

By
C. W. Head, Assistant Secretary

cr
Attachment

bc: H. S. Cox
(one conformed agreement attached)

TRANSACTION NUMBERS 8-22 THRU 8-25

Rider 8-8-69 Cop - Jour

FORM PR-48 (REV. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(FPM 21-1)

STATE HIGHWAY DEPARTMENT	DATE
OREGON	8-6-69

BY (Signature)
MR. YOUNG'S JULY 24, 1969 LETTER

TITLE

CLASS OF FEDERAL FUNDS
☐ FAI ☐ FAP ☐ FAU XX FAS ☐ OTHERS

STAGE 1 *
ITEM NOS. _____ THRU _____

STAGE 2
ITEM NOS. 1008 THRU 1011

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS
1008	SU 128 (6)	1.25	215,000	129,000
1009	S 12-104(1) 1210(401)	7.47	475,000	285,000
1010	SU 23-103(1) 2310(301)	0.51	85,000	51,000
1011	S 569(1)	0.015	85,000	51,000

OTHER IDENTIFICATION AND/OR REMARKS (State)

LOCATION	WORK
POWDER RIVER SECTION	GR. DR. LOW TYPE SURF.
MILLER RANCH-WICKIUP FOREST CAMP SECTION	BASE ROCK, INTERMEDIATE TYPE SURFACE
N.W. 4TH AVENUE ARCATA WAY SECTION	IRRIGATION FACILITY ADJUSTMENT
SILVER CREEK (SILVERTON) BRIDGE	STRUCTURE

RECEIVED
AUG 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

REMARKS (Division)

YOU ARE AUTHORIZED TO PROCEED WITH ACTIONS NECESSARY TO ADVANCE TO COMPLETION THE PHYSICAL CONSTRUCTION PROVIDED FOR BY THE ABOVE PROJECTS IN ACCORDANCE WITH THE PROVISIONS OF YOUR APPROVED SECONDARY ROAD PLAN. IF YOU SUBSEQUENTLY FIND THAT EXCEPTIONS TO THE PROCEDURE WILL BE NEEDED OR THAT YOUR PROPOSED DESIGN STANDARDS FOR THESE PROJECTS ARE LOWER THAN THE MINIMUM DESIGN STANDARDS AS APPROVED JUNE 24, 1968, THIS OFFICE SHOULD BE NOTIFIED OF SUCH PROPOSED EXCEPTIONS AND REASONS THEREOF.

FOR FILING

RECEIVED
AUG 11 1969

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE
		8-6-69	R. E. SIMPSON, DIVISION ENGINEER

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-9

7

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

7-24-69

FEDERAL-AID (PP

CARD 2	REPORT NUMBER (18)–(20)	1	PROJECT LOCATION (45 typewriter spaces) 21–65	Co. Rd. 9 Mi. S. Canyon City S.E. 7.5 mi.	ADT	PRESENT (66)–(70)	200	FUTURE (66)–(70)	300	Y (7	
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28–62	Rock Base, Intermediate Type Surf.	NATL. FOREST (63)–(65)		FH ROUTE NO. (66)–(68)		SUPV. AGCY (69)		DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)–(73)	PL. A (74)
CARD 4	CLASS OF FEDERAL FUNDS	Secondary							COUNTY NAME	G		
	NAME OF URBAN AREA 17-31								ROUTE NO.	S	FEDERAL	12-I

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	ESTIMATED PROJEC FEDERAL FUND ~~8-12-10~~
1	(14-15)	(16)	41	42	43–46	53		(54)–(58)	(59)–(66)	(67)
5					PE		Co. Rd. 9 mi. S. of Canyon City S. E. 7.5 mi.			
5					ROW		(Miller Ranch – Wickiup Forest Camp Section)			
5					CONST (CODE)			7.47	475,000	285,000
							PROJECT TOTALS	7.47	475,000	285,000

CARD	CODE	PREPARED BY
1	1	
1	14	PROGRAM APPROVAL DATES

(16) (23) (24)

7303

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

-69

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
mi. (65)	ADT	200	300 (66)(70)	89 (71)(72)	08	OREGON	35 (2)(3)	022 (4)(9)	1009 (14)(18)

SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)(73)	PL. AUTH YR (74)(75)	PROJECT NUMBER PREFIX LETTER(S) 14 15	NUMBER 16 23	SEQ. NO. 24 27	I. Projects Only POST MI. (24)(26)	DESIG.
					S-	12-104(1)			

COUNTY NAME: Grant — CODE: 023 (14)(15)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO.: S — FEDERAL-AID: 12-104 (32) — STATE: Co. Rd. (36)(37) — U.S. (41)

MILES (54)(58)	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST (59)(66)	FEDERAL FUNDS ~~S 12-10~~ (67)(76)	STATE FUNDS ~~Co. Rd.~~	OTHER FUNDS	CHARACTER OF PROPOSED WORK *(Full description)*
					Stone Base, 2-10' lanes Type O-11 oil surface with 4' shoulders.
7.47	475,000	285,000	95,000	95,000(Co.)	ROW - 60' min; access control - None, Parking Restriction - None.
7.47	475,000	285,000	95,000	95,000(Co.)	

(16) (23)(24) (33) REMARKS

Relocation Payments: None involved.

USCOMM-DC ... 5 P61

MILLERS RANCH-WICKIUP FOREST

CAMP SECTION

PROJECT S-12-104(1)

EXISTING FACILITIES: The county has reconstructed the subgrade of this roadway on improved alignment and has adjusted drainage accordingly. This roadway runs up a narrow valley in mountainous terrain.

ADJACENT SECTIONS:

NORTH END: FAP 30

SOUTH END: Gravel Roadway 28' wide

PROJECT DATA: Base and pave a roadway 28'in width. Paving to be an O-11 oil mat and to have 2 - 10' travel lanes and 4' shoulders. Signing to be part of the project.

RIGHT OF WAY: 60' minimum
ACCESS CONTROL: None
RR XING: None
MINIMUM DESIGN STANDARDS: No deviations
SYSTEM ACTION: Completed 7/10/68

PUBLIC HEARING: No required - all negotiations for the necessary additional right of way had been completed prior to Jan. 1969.

UNUSUAL OR COMPLICATED SITUATIONS: This is a stage construction project and will improve nearly the entire route. The county has done the grading and draining and this contract will do the basing, leveling and place the oil mat 28' in width. The County applied in August 1968 for this FAS project covering the basing and oiling for 2 - 10' travel lanes and 4' shoulders (to be paved). In view of these facts, design approval was given this project prior to Jan. 14, 1969, and therefore paragraph 10 of PPM 20-8 does not apply.

ROUTE DATA: This route is used for logging, ranching, recreation, and a forest camp.

PARKS AND RECREATION AFFECTED: No
RELOCATION ASSISTANCE: None
SOCIAL, ECONOMIC & ENVIRONMENTAL EFFECTS CONSIDERED: Yes

The State does not, at this time, have legal authority to regulate the use by Utilities of the rights of way of this project; however, a State-County agreement is being prepared to comply with paragraph 6d(1) of PPM 30-4.1.

MILLERS RANCH-WICKIUP FOREST

CAMP SECTION

PROJECT S-12-104(1)

TING FACILITIES: The county has reconstructed the subgrade of this roadway on improved alignment has adjusted drainage accordingly. This roadway runs up a narrow valley in mountainous terrain.

CENT SECTIONS:

NORTH END: FAP 30

SOUTH END: Gravel Roadway 28' wide

ECT DATA: Base and pave a roadway 28'in width. Paving to be an O-11 oil mat and to have 2 - 10' vel lanes and 4' shoulders. Signing to be part of the project.

HT OF WAY: 60' minimum
ESS CONTROL: None
XING: None
IMUM DESIGN STANDARDS: No deviations
TEM ACTION: Completed 7/10/68

LIC HEARING: No required - all negotiations for the necessary additional right of way been completed prior to Jan. 1969.

SUAL OR COMPLICATED SITUATIONS: This is a stage construction project and will improve nearly the ire route. The county has done the grading and draining and this contract will do the basing, eling and place the oil mat 28' in width. The County applied in August 1968 for this FAS project ering the basing and oiling for 2 - 10' travel lanes and 4' shoulders (to be paved). In view of se facts, design approval was given this project prior to Jan. 14, 1969, and therefore paragraph 10 PPM 20-8 does not apply.

TE DATA: This route is used for logging, ranching, recreation, and a forest camp.

RKS AND RECREATION AFFECTED: No
LOCATION ASSISTANCE: None
CIAL, ECONOMIC & ENVIRONMENTAL EFFECTS CONSIDERED: Yes

The State does not, at this time, have legal authority to regulate the use by Utilities of the ghts of way of this project; however, a State-County agreement is being prepared to comply with ragraph 6d(1) of PPM 30-4.1.

SAFETY: No

M.P. 0.00 to 7.47

MEMO TO R. H. CRANE - July 16, 1969

FAS 12-10(); GRANT COUNTY; MILLERS RANCH-MOUNTAIN FOREST CAMP SECTION

Termini: The northwesterly termini is approximately 9.0 miles south of Canyon City at the junction with FAP-30 (John Day-Burns Highway) M.P. 10.2; then southeasterly 7.5 miles approximately to Whiting Forest Camp.

NOTED
H. S. COX

Proposed work: Base, level, and pave.

Project length: 7.47 miles

COSTS:	TOTAL	FEDERAL	STATE	COUNTY
Construction	$475,000	$285,000	$95,000	$95,000

Existing facilities: The County has reconstructed the subgrade of this roadway on improved alignment and have adjusted drainage accordingly. This roadway runs up a narrow valley in mountainous terrain.

ADJACENT SECTIONS:
North End: FAP 30

South End: Gravel roadway 28' wide

Project data: Base and pave a roadway 28' in width. Paving to be an O-11 oil mat and to have 2-10' travel lanes and 4' shoulders. Signing to be part of the project.

Right of Way: 60' minimum
Access Control: None
RR Xing: None
Minimum design standards: No deviations
System action: Completed 7/10/68

Public hearing: Not required - all negotiations for the necessary additional right of way had been completed prior to Jan. 1969.

Unusual or complicated situations: This is a stage construction project and will improve nearly the entire route. The County has done the grading and draining and this contract will do the base, leveling and place the oil mat 28' in width. The County applied in August 1968 for this FAS project covering the base and oiling for 2-10' travel lanes and 4' shoulders (to be paved). In view of these facts, design approval was given this project prior to Jan. 14, 1969, and therefore paragraph 10 of PPM 20-8 does not apply.

Route data: This route is used for logging, ranching, recreation, and a forest camp.

Parks and recreation affected: No
Relocation assistance: None
Social, economic & environmental effects considered: Yes

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED

12

NOTED
H. S. COX

July 14, 1969

Mr. Hillery Stout
Grant County Roadmaster
Courthouse
Canyon City, Oregon 97820

Miller Ranch-Wickiup Forest Camp Section
Canyon Creek Road FAS 12-104
Grant County

Dear Hillery:

I tried to call this morning but you were already gone.

Regarding the grid-rolled stone subbase on the Canyon Creek Road, this material is to be compacted 14-1/2" thick and, of course, full width. The FAS-C project will place the 6" of crushed stone base as well as the level course and 0-11 oil mat.

The simplest method of telling you how and where to place this material is as follows:

Borrow at Station 5 to 8. Haul and place 26,000 c.y. from Station 0 (East end of job) to Station 115.

Borrow at Station 222 to 224. Haul and place 32,000 c.y. from Station 115 to Station 257.

Borrow at Station 290 to 293. Haul and place 10,700 c.y. from Station 257 to 305.

Borrow at Station 317 to 319. Haul and Place 20,300 c.y. from Station 305 to Station 394 (West end of job).

Total for project is 89,000 c.y.

An additional copy of the report on this project from our soils section for your use and reference is enclosed. A copy of this same report was sent to you in June.

NOTED
R. H. PRANGE

Hillery Stout and Judge Blackmore called today 7/15/69 and said to include this as part of the contract. They chose the blue tape, and wanted grade up to Blue tape, that is final from our people that is part of the grade. He said it is on the line of base rock. 0.8 eveside rock. Called Clarence

NOTED
HAROLD REYNOLDSON

NOTED
R. H. PRANGE

NOTED
P. B. Arensmeier

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

Noted
Oscar H. Norberg

At present we have this project scheduled for letting on August 26, but are wondering if this is allowing the County enough time to complete their work. If this is not sufficient time, it may be necessary to set the project back to our October 23 letting. Would you please let us know as soon as possible the date you expect to have this work completed.

Very truly yours,

H. S. Cox
County and City Engineer

By NOTED
HAROLD
REYNOLDSON

Harold Reynoldson
Planning Engineer
County and City Division

HR:lat

Encl.

Oregon State Highway Commission
State Highway Building
Salem, Oregon

7-8-69

NOTED
H. S. COX

Attention: County and City Division

SUBJECT: Federal Aid Project No. FAS 12-104

Highway No. 65

Project Name Miller Ranch-Wickiup Forest Camp Section

Gentlemen:

1. We hereby certify that, to the best of our knowledge and belief, all rights-of-way or rights-of-entry for the above referred to Federal-aid project have been secured.

2. We hereby certify that: (check one)

☒ There has been no displacement of persons from residences, farms, or businesses; or

☐ All displaced persons have been tendered all assistance possible and given all available information to assist in re-establishment in residence, farm, or business.

3. We hereby certify that the occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to Federal-aid project have been authorized by permit, franchise, or other approved procedure.

Dated at Canyon City, Oregon, this 8th day of July, 1969.

RECEIVED
JUL 10 1969
ENGINEER
COUNTY & CITY DIVISION

Grant County

Commissioner

Commissioner

Copy to:- John Oaks
Scott Coulter
C.G. Swenson
R N Chase

(11/29/66)

NOTED
R. H. PRANGE

NOTED
HAROLD REYNOLDSON

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

Noted
Oscar H. Norberg

NOTED
DON HARWELL

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section MILLER RANCH - WICKIUP FOREST CAMP (CANYON CREEK ROAD) Highway F.A.S. 12-104 County Grant Prefix 512-1489

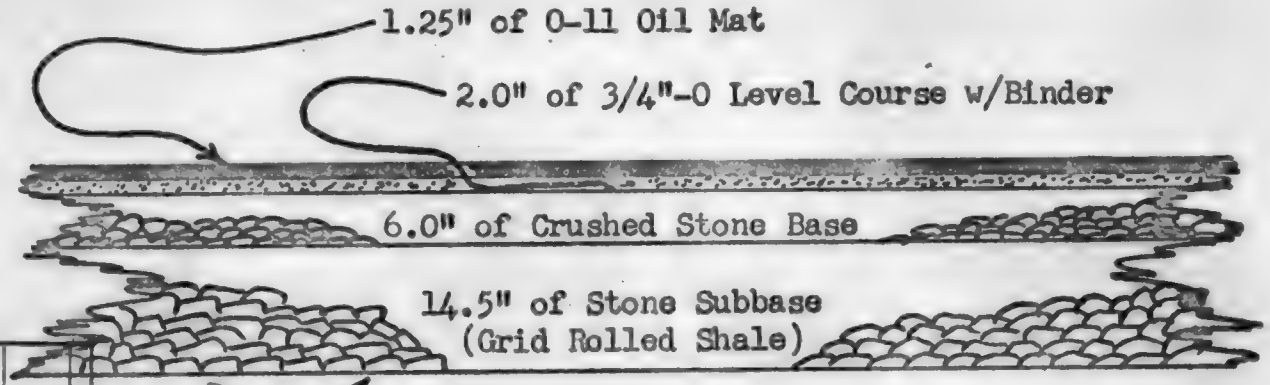
Res. Engr. _____ Approx. Length 7.5± Miles. Sta. _____ to Sta. _____ Date 6-18-69

Mean

Truck A.D.T. 64 Traffic Coefficient 7.4 18 kip s.a. per day 34.3.

Annual Precipitation 14"± (John Day) Frost Penetration 36"±.

(1)
Typical Soil
34 LL
13 PI
48 %P 10
15 %P200
52 %Gravel
22 %C Sand
10 %F Sand
8 %Silt
8 %Clay
20 "R" Value



	CBE Total Req.	Credit	Actual Thick.	
		1.5	1.25	0-11
		2.0	2.0	Level
		6.0	6.0	C.S.B.
		11.5	14.5	S.S.
21.0		21.0	23.75	

AASHO CLASSIFICATION:
A-2-6

MATERIAL SOURCES:
To be determined by the Engineer.

(1)
Silty Sandy Gravel

Miller Ranch - Wickiup Jct.

See Page 2 for remarks.

RECEIVED JUN 25 1969 FOR FILING

NOTED F. P. KLAUSE

Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist

Submitted by E. J. Engr for Staff Assistant

Recommended by C A Hanks Engineer of Materials

Recommended by J. F. Becker Asst. Construction Engineer

Approved by F P Klause Asst. State Highway Engineer

County-City-2

SECTION: MILLER RANCH - WICKIUP FOREST CAMP (CANYON CREEK ROAD)

HIGHWAY: F.A.S. 12-104

COUNTY: Grant

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	P.M.B.B. or C.T.B.	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
N O N E							

Remarks:

The Typical Soil represents an average of the material that will be utilized in the subgrade. The finished grade will consist of areas worse than the Typical Soil, and other areas considerably better. This non-uniformity precludes reducing the surfacing thickness thru what might be a better material than shown as the Typical Soil.

The use of Grid Rolled Stone Subbase (Shale) in lieu of coarse base is recommended as the material is available on the project. Samples of the shale along line were tested and the areas listed below will produce material that conforms to the Stone Subbase specifications, exception, top size should be eliminated. It is imperative that the shale subbase be selected from Stations 5+00 - 8+10, R. of C.L., 222 - 224, R. of C.L., 290 - 293, L. of C.L. and 317 - 319, L. of C.L. It is further recommended that the shale subbase be covered by the crushed stone base as soon after placement as practical.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0" Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8" Crushed Base
1.0"	Cement Treated Base	=	1.8" Crushed Base
1.0"	Oil Mat	=	1.1" Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8" Crushed Base
1.0"	Lime Treated Subgrade	=	— " Crushed Base

Above factors apply to materials that comply with Standard Specifications, Supplemental Standard Specifications, and Special Provisions.

TRAFFIC ANALYSIS

SECTION: MILLER RANCH - WICKIUP FOREST CAMP (CANYON CREEK ROAD)

HIGHWAY: F.A.S. 12-104

COUNTY: Grant

200 Present ADT (19 69)

25 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	5	1.5	8	7	450	3,150
3	25	1.5	38	32	1000	32,000
4	—	—	—	—	1250	—
5	20	1.5	30	25	3180	79,500
6	0	—	—	—	2570	—
				64 TOTAL		

TOTAL AVERAGE ANNUAL DESIGN EWL 114,650

TWENTY YEAR EWL 2,293,000

TRAFFIC COEFFICIENT 7.4

SECTION: MILLER RANCH - WICKIUP FOREST CAMP (CANYON CREEK ROAD)

HIGHWAY: F.A.S. 12-104

COUNTY: Grant

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good _____ Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A.C. or Oil
7. Stage Construction: Not applicable
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: County requested an Oil Mat
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made for this project as traffic does not warrant the use of C.R.P.C.C. See Item 12.

Form E-324—12,500 Sets—9-60

OREGON STATE HIGHWAY DEPARTMENT

SOIL AND GEOLOGICAL EXPLORATION OG

Construction Division

12

John Day - Burns Hwy

Project Wickiup Forrest Camp Highway FAS 12-104 Date 6-3 19 69

County Grant Res. Engineer Prefix 512-1484

Exploration equipment used Air True Drill NOTED H. S. COX

Exploration area: Cut, depth ..... ft. Embankment fonda.—Emb. ht. ..... ft.

..... Station ..... Lt. ..... C. L. ..... Rt. .....

Borrow—(Quarry)—Location 2.5 mi. Rt. of Sta 227+00 or NE¼ Sec. 18, T. 15 S.; R. 32 E.

Hole location

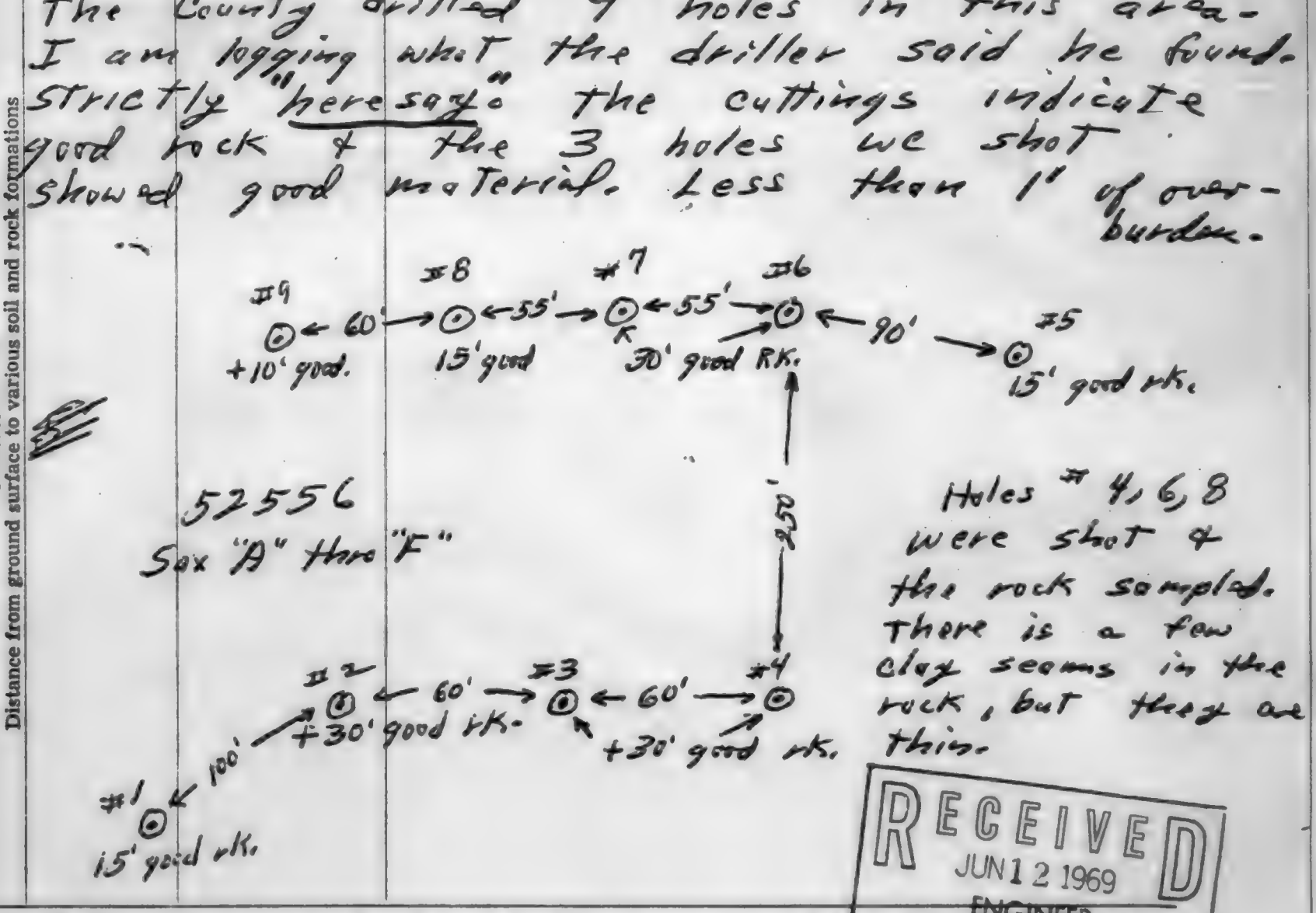
Slide—Horizontal hole ..... Vertical Hole .....

..... Station ..... Lt. ..... C. L. ..... Rt. .....

Hole No. .....

Ground Surface Elevation	Sample Data H.D. Sheet No.	DESCRIBE SOIL, ROCK AND MOISTURE CONDITIONS DESCRIBE DRILLING RATE FOR POWER EQUIPMENT
		The County drilled 9 holes in this area. I am logging strictly "here say". What the driller said he found. The cuttings indicate good rock & showed good material. The 3 holes we shot Less than 1' of overburden.

Indicate in Feet
Distance from ground surface to various soil and rock formations



52556
Sox "A" Hole "F"

Holes # 4, 6, 8 were shot & the rock sampled. There is a few clay seams in the rock, but they are thin.

RECEIVED
JUN 12 1969
ENGINEER
COUNTY ROAD DEPARTMENT

NOTE: Prepare a sheet for each hole. Mail copies at end of day. Show zones for all samples taken. For horizontal holes indicate skew from center line by rough sketch. Show water zones and level of water in hole after waiting period.

NOTED
R. H. PRANGE

This copy for Construction Engineer

V. Moore

Soils, Geologist or Driller

NOTED
DON HARWELL

April 8, 1969
(date)

NOTED
H. S. COX

Grant County Court
Courthouse
Canyon City, Oregon 97820

In order to comply with requirements of the Bureau of Public Roads covering protection of public resources such as recreational areas, historical sites, wild life refuges, or any other facility in which the public has a specific interest, it is required that local public authorities should be consulted regarding the impact on these resources of a planned highway improvement.

Would you please fill out the form below regarding these resources and return it to the Oregon State Highway Department, County and City Division, State Highway Building, Salem, Oregon (97310). Retain the second copy for your records.

NOTED
DON HA[illegible]

NOTED
MAINOR C. HOLMES

Highway FAS 12-104

Section Miller Ranch-Wickiup Forest Camp: Stone base & oil

Do you know of any public organization or quasi-official organizations that might be opposed to this project on the grounds of interference with recreational, historical, or public resources? Yes ☐ No ☒

If answer is yes, please list organizations:

RECEIVED
APR 14 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
HAROLD
REYNOLDSON

April 12, 1969
(date)

By Rho Bleakman

By Bud Engle
Commissioner

NOTED
P. B. Arensmeier

By [illegible]
Commissioner

cc: L. H. Young
Attn: Duane Ridings

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

RECEIVED
OCT 18 1968
FOR FILE

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

October 17, 1968

Mr. P. W. Schneider
State Game Director
Oregon State Game Commission
P. O. Box 3503
Portland, Oregon 97208

ATTENTION: Mr. R. O. Koski

RE: John Day Highway-Wicklup
Forest Camp Section
FAS 12-104
Grant County

Dear Sir:

R/W
F.B.K.

Reference is made to your letter of October 15, 1968 regarding our prospectus sent to you September 23, 1968 on the above project.

This prospectus was for the surfacing only, and this project is now tentative on our schedule for the June 26, 1969 letting.

The survey, clearing, grading and drainage was done by the County. Any corrective work should be discussed with the County.

At the present time, we have no control over projects on which the work is performed by County forces or County contracts. It is suggested that you set up procedures so that you will be advised of such work.

RS:fw
bc: F. B. Klaboe
L. H. Young
Frank Hall
T. C. Roake
George Wills
Harold Reynoldson
A. F. Parson

Very truly yours,

Forrest Cooper
State Highway Engineer

RECEIVED
OCT 17 1968
OFFICE OF
STATE HIGHWAY ENGINEER

By

F. D. Morgan
Construction Engineer

GAME COMMISSION

OFFICE OF THE DIRECTOR

P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

Routing: Morgan, Decker, Bond, Barbee, Walker, Glenn, Swan; Pease, Morelock, Trout, Scott, Wills, Litchfield, Olson

RECEIVED OCT 16 1968 LEGAL & RIGHT OF WAY CONSTRUCTION DIVISION

TOM McCALL
GOVERNOR

COMMISSIONERS
J. PAT METKE, Chairman
JOSEPH W. SMITH, Vice Chairman
JOHN P. AMACHER, Member
GEORGE L. HIBBARD, Member
JAMES W. WHITTAKER, Member

P. W. SCHNEIDER
State Game Director

October 15, 1968

Routing: Morgan, Decker, Bond, Barbee, Walker, Glenn, Swan; Pease, Morelock, Trout, Scott, Wills, Litchfield, Olson

RECEIVED OCT 1 • 1968 CONSTRUCTION DIVISION

State Highway Engineer
State Highway Department
Salem, Oregon 97310

Attention: Mr. F. D. Morgan

Dear Sir:

Reference is made to your letter of September 23, 1968, which enclosed the prospectus for the following project:

John Day Highway - Wickiup Forest Camp Section
FAS 12-104, Grant County

A field investigational report on this project reveals that much of the work has already been completed. Considerable habitat change has occurred in several areas. One section, in particular, contained about 600 feet of excellent spawning area. The altered channel areas should have some restoration, in the placement of boulders, from four to six feet in diameter, and staggered at thirty foot intervals. This is similar to the improvement effected in the channel change areas of lower Canyon Creek.

One of the rotary screen units will have to be relocated, and the County Road Superintendent has been notified of this.

We are disappointed that we were not able to provide recommendations on fishery habitat preservation early in the project. The County Road Superintendent has assured us of cooperation on the remainder of the project. Preservation of habitat is usually inexpensive, if such precautionary work can be planned well in advance of construction.

We trust that our recommendations meet with your approval.

Very truly yours,

P. W. SCHNEIDER
DIRECTOR

by R. O. Koski

R. O. Koski
Chief of Liberations

ROK:js

cc: Director OFC
County Road Supt., Grant Co.

10-15-68 Copies to:
F. B. Klaboe ✓
L. H. Young
Frank Hall
T. C. Roake
George Wills
A. F. Parson (2)
fw

RECEIVED
OCT 16 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 30 1968
COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
FOR FILING
FRED W. HILL, MEMBER
PENDLETON
THADDEUS B. BRUNO, MEMBER
PORTLAND

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

September 23, 1968

SEP 26
FISH COMMISSION
Director
Asst. Director
Fiscal Officer
Spec. Asst.
Auditor
Licenses
Fish Culture
Research
Engineering
Water Res.
Info-Ed.
Surname
Routing
Morstock
Trout
Scott
Wills
Litchfield
Olson
Aarsen
Bond
Barbee
Walker
Glenn
Swan
RECEIVED
SEP 1968
CONSTRUCTION
DIVISION

Mr. Robert W. Schoning
State Fisheries Director
Fish Commission of Oregon
307 State Office Building
Portland, Oregon 97201

Dear Sir:

Enclosed is the following prospectus for a location survey proposed by the Oregon State Highway Department:

John Day Highway-Wickiup Forest Camp Section, FAS 12-104
Grant County

This data is forwarded to comply with Modification No. 1 dated May 19, 1965 of our Memorandum of Understanding dated September 12, 1963.

9-30-68 Copies to:
F. B. Klaboe
L. H. Young
Frank Hall
T. C. Roake
George Wills
A. F. Parson (2)
fw

Enc.

Very truly yours,

F. D. Morgan
Construction Engineer

By D J Barbee

D. J. Barbee
Assistant Construction Engineer

RECEIVED
SEP 30 1968
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F.B. KLABOE

SNR 9-26-68

Dear Mr. Barbee,

Fish passage protection will be required, especially during the clearing, grading & drainage portion of the work. the County should be made fully aware of the hazards to the fish resource that can be involved in this type of work.

BURT CARNEGIE
Hydraulic Engr.

cc: 06c

RECEIVED
SEP 26 1968
FCR FILING

9-23-68

Prefix No. 512-1489

NOTED
R. L. PORTER

LOCATION PROSPECTUS
JOHN DAY HIGHWAY-WICKIUP FOREST CAMP SECTION
FAS 12-104 - GRANT COUNTY

HIGHWAY: Canyon Creek County Road, Federal-aid Secondary 12-104.

TERMINI: The northwesterly terminus is at M.P. 10.16 on the John Day-Burns Highway. The southeasterly terminus is at Wickiup Forest Camp.

LENGTH: 7.5 miles.

PROGRAM: 1969 FAS-C Funds.

NARRATIVE: This will be a location survey to prepare plans, specifications and estimates of costs for base, level and oiling. County to make survey and do the clearing, grading and drainage. Reconnaissance is not necessary. Soils investigations will be conducted. An economic analysis is not needed at this time.

CHARACTERISTICS: Present ADT is 200; projected ADT is 300.

STANDARDS: Class "E". Deviations from State or AASHO standards are not anticipated.

TYPICAL SECTION: Two 10-foot travel lanes with 4-foot oiled shoulders.

BRIDGE: Bridge over Canyon Creek to be adjusted by County.

MATERIAL: County to furnish material.

BASE: Tentative base design for construction is:

Surfacing	1-1/4" 0-11
Top Course Base	2 " Leveling
Bottom Course Base	17-1/2" Coarse Base
Total	20-3/4"

NOTED
FORREST COOPER

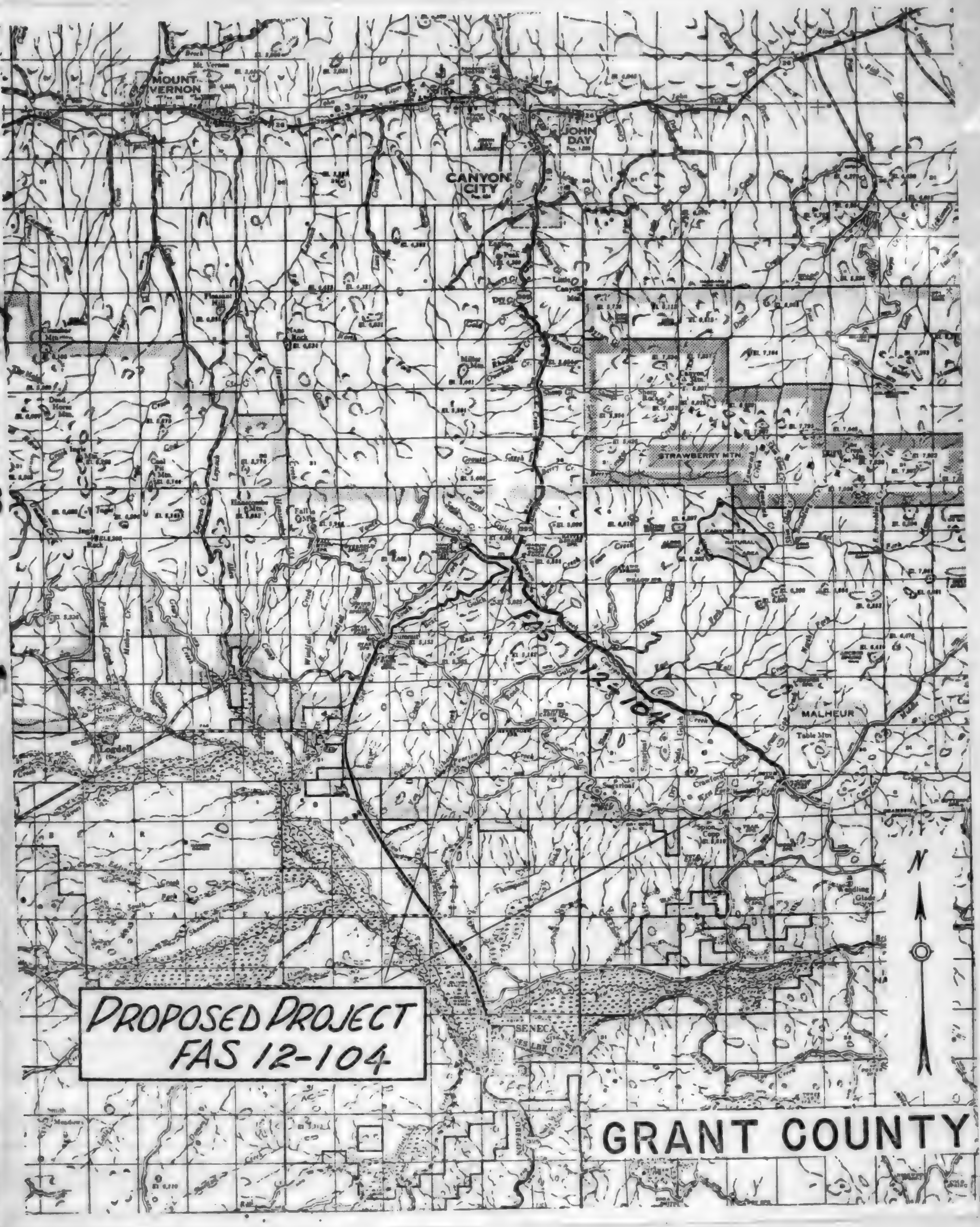
RECEIVED
SEP 25 1968
OFFICE OF
STATE HIGHWAY ENGINEER

UTILITIES: County responsibility.

AGREEMENTS: Routine FAS-C project.

PARKS: None.

September 23, 1968
Attachment
CC: R. E. Simpson (3)
Forrest Cooper
F. B. Klaboe
Tom Edwards
F. D. Morgan
A. F. Parson (3)
Mark Astrup
J.M. Cartwright (2)
R. N. Chase
H. S. Cox (2)
F. B. Crandall
W. N. Hackleman
Frank Hall
E. S. Hunter
Val Johnson
I.D. Merchant (4)
D.H. Moehring (3)
A. D. Olson
James Owens
Jack Rowland
Robert Royer
W. H. Tebeau
O.C. Turner
F. W. Yarbrough(2)
L. H. Young
Victor D. Wolfe


MOUNT VERNON
JOHN DAY
CANYON CITY
STRAWBERRY MTN
MALHEUR
Logdell
SENECA
12-104
N
PROPOSED PROJECT
FAS 12-104
GRANT COUNTY

Form E-30

OREGON STATE HIGHWAY DEPARTMENT

Miller Ranch

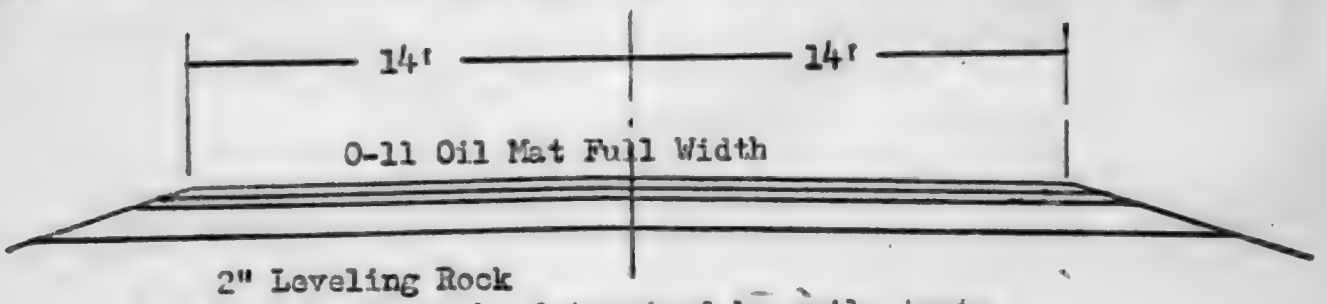
AUTHORITY FOR SURVEY

Section John Day Hwy.-Wickiup Forest Camp — Date August 2, 19 68

Highway Canyon Creek Road FAS 12-104 — Authorization No. 1

County Grant — Division 5 — Survey Prefix 512-1489 (Assigned by Salem office)

Description of termini, route, length, etc.: Project will begin at the junction of the John Day-Burns Hwy with the Canyon Creek County Load(about 9 miles south of Canyon City) thence in a southeasterly direction following the existing road to Wickiup Forest Camp, a distance of 7.5 miles.



TYPICAL SECTION

Purpose of survey: Prepare plans and specification ans estimate of cost for the State to base, level and oil(0-11) county road.

RECEIVED
SEP 5 1968
SEP 5 - 1968

Estimate of cost: Survey (901) State Cost for State Work) $ 500
Geology and Soils (910) 500
Plans (905) 500

INSTRUCTIONS

Submit four copies to Salem. After approval by the State Highway Engineer, one copy will be sent to the Division Engineer and one copy to the Resident Engineer.

This form does not constitute authority for making survey until approved and returned.

Submit separate order for each survey.

Total estimated cost of survey . . . . . $ 1,500.00

Previous authorization . . . . . ———

Additional authorization requested . . . . ———

Additional authorization approved (Salem) . ———

Total all authorizations approved (Salem) . . ———

Requests made by:

Field Engineer

Recommended for Approval:

Division Engineer

Recommended for Approval:

D J Barbur
Ass't Construction Engineer

Approved:

Jos Klabre
Ass't State Highway Engineer

State Printing

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

GRANT COUNTY
PROPOSED PROJECT (1968 Funds)

FAS 12-104 - Canyon Creek Road; ~~John Day Highway~~ Miller Ranch - Wickiup Forest Camp Section; base, level, and oil; approximately 7.5 miles - $285,000. (To be supplemented with future funds if necessary.)

This project is to consist of basing, leveling, and placing an O-11 oil mat wearing surface for a roadway having a top width of 28 feet. The O-11 oil mat wearing surface is to be the full width of 28 feet.

Material source is to be determined with the assistance of the State.

The County will make the survey and do the clearing, grading, drainage, and adjust structures to fit new roadway. Additional right of way is County responsibility.

68-1
7/30/68

approved 8/20/68

RECEIVED
JUN 11 1968
ENGINEER
COUNTY & CITY DIVISION

6-7-68

COUNTY ROAD FAS PROJECT DATA

1. Name of County Grant County, Oregon FAS No. 12-104

2. County Road Name Canyon Creek Road

3. Section Name ~~John Day Hwy~~ Miller Ranch - Wickiup Forest Camp ~~Forest Boundary~~ Length 7.8 miles

4. Type of Project Surfacing & Oiling

5. Survey to be done by: State____ County X
(NOTE: If project is canceled, County must pay for survey.)

PROJECT DATA -

6. Has base design been given to County? Yes____ No X

Will it be furnished? Yes X No___

7. Wearing Surface: Type O - 11 Width 20 Shoulders 4

8. Grading & Drainage:

By County X County Date of Completion____ By Contract____

9. Bottom Base Course:

By County____ County Date of Completion____ By Contract X

10. Leveling Course:

By County____ County Date of Completion____ By Contract X

11. Wearing Surface:

By County____ County Date of Completion____ By Contract X

12. Clearing:

By County X County Date of Completion____ By Contract____

13. Is there any merchantable timber on right-of-way? Yes___ No X

14. Will timber be reserved for owner? Yes___ No X

15. Will timber become property of contractor? Yes___ No X

Remarks____

MATERIAL SOURCE -

16. Gravel____ Quarry X Cinders____

17. Owner: County____ State____ Private____

18. Location: To be determined Section____ Township____ Range____ W.M.

CAR 61-8

19. Materials furnished by County: Borrow ___ Select Topping ___

Base Course X Level Course ___ Mineral Aggregates X

20. Miscellaneous Items: _____

Remarks: _____

_____

FINANCIAL- -

21. Estimated Cost: $_____

22. Available FAS Funds: $ 285,000.00

23. Date Match Money is Available: Now

24. Will there be any 100% County Money? Yes ___ No X

25. Maximum Amount of 100% County Money Available: $ None

26. Date County Requests Letting: 1969

Remarks _____

_____

RIGHT-OF-WAY- -

27. Is any additional right-of-way needed? Yes X No ___

28. Will right-of-way be acquired by: Resolution ___ or Deed X

29. Should State prepare options? Yes ___ No X

30. Should State prepare centerline descriptions for acquiring right-of-way by resolution? Yes ___ No X

31. Should material source site be included in right-of-way descriptions? Yes ___ No X

32. Does project run inside city? Yes ___ No X
(NOTE: If right-of-way is procured in community with post office or in a city, an opportunity for hearing must be afforded. [redacted].)

33. Are there any utilities (electric, water, gas, sewer, etc.) on private land? Yes ___ No ___
(NOTE: County must move all utilities located on present right-of-way.)

Remarks _____

CLR 61-8

RAILROADS- - - -

49. (b) Timing (Cooperative project by County, finance, irrigation, industrial usage, outside projects)

Explain: _____

_____

_____

_____

50. (c) Surveys (Coordination with outside surveys)

Explain: _____

_____

_____

MISCELLANEOUS -

51. Does County wish rounding of cutbanks? Yes___ No X

52. Does County wish sight posts installed? Yes___ No X

53. Does County wish guard rail installed? Yes___ No X

54. Does County wish seeding and mulching incorporated into job?

Yes___ No___

NOTE: Approach fills for pile bent structures must be in place prior to bridge construction.

Grant County

June 7, 1968 Date

By Phil Blackburn
Judge or ~~Commission Chairman~~

By _____
County Engineer

Robert N. Savage
O.S.H.D. Field Engineer

Date July 16, 1968

CER 4-2

FAS 12-104
Grant Co

RECEIVED
JUN 2 1967
ENGINEER
COUNTY & CITY DIVISION

COUNTY ROAD FAS PROJECT DATA

6-1-67

1. Name of County Grant FAS No. _____
2. County Road Name Canyon Creek Road
3. Section Name ~~John Day - Burns Hwy~~ Miller Ranch - Wickiup Forest Camp Length 7.31
4. Type of Project Base and Surface
5. Survey to be done by: State _____ County X
   (NOTE: If project is canceled, County must pay for survey.)

PROJECT DATA -

6. Has base design been given to County? Yes ____ No X

   Will it be furnished? Yes X No ____

7. Wearing Surface: Type Oil Width 20' roadway & 3' shoulders Shoulders _____

8. Grading & Drainage:

   By County X County Date of Completion July 1-68 By Contract _____

9. Bottom Base Course:

   By County ____ County Date of Completion _____ By Contract X

10. Leveling Course:

    By County ____ County Date of Completion _____ By Contract X

11. Wearing Surface:

    By County ____ County Date of Completion _____ By Contract X

12. Clearing:

    By County X County Date of Completion _____ By Contract _____

13. Is there any merchantable timber on right-of-way? Yes ____ No X

14. Will timber be reserved for owner? Yes ____ No X

15. Will timber become property of contractor? Yes ____ No X

    Remarks Completion date of grading could be earlier weather permiting

MATERIAL SOURCE -

16. Gravel _____ Quarry X Cinders _____

17. Owner: County X State _____ Private _____
    to be determined later

18. Location: _____ Section ____ Township ____ Range ____ W.M.

CAR 61-4

19. Materials furnished by County: Borrow____ Select Topping____

Base Course____ Level Course____ Mineral Aggregates____

20. Miscellaneous Items: _____

Remarks:_____

_____

FINANCIAL- -

21. Estimated Cost: $_____

22. Available FAS Funds: $_____

23. Date Match Money is Available: _____

24. Will there be any 100% County Money? Yes___ No___

25. Maximum Amount of 100% County Money Available: $_____

26. Date County Requests Letting: _____

Remarks_____

_____

RIGHT-OF-WAY- -

27. Is any additional right-of-way needed? Yes X No___

28. Will right-of-way be acquired by: Resolution____ or Deed X

29. Should State prepare options? Yes____ No X

30. Should State prepare centerline descriptions for acquiring right-of-way by resolution? Yes____ No X

31. Should material source site be included in right-of-way descriptions?

Yes____ No X

32. Does project run inside city? Yes____ No X
(NOTE: If right-of-way is procured in community with post office or in a city, an opportunity for hearing must be afforded. [redacted].)

33. Are there any utilities (electric, water, gas, sewer, etc.) on private land? Yes____ No X
(NOTE: County must move all utilities located on present right-of-way.)

Remarks_____

CLR 61-2

RAILROADS- -

34. Location: _____

35. Name of Railroad: _____

36. Number of tracks: _____

37. Sight distance: _____(Left) _____(Right)

38. Number of trains_____

39. Angle of intersection_____

40. Type of crossing: Grade_____ Overcrossing_____ Undercrossing_____

41. Number of signs: Advance Warning_____ Crossbucks_____ Stop_____

Automatic Flashing_____ Automatic Bell_____ Gates_____

Remarks_____

STRUCTURES- -

42. Are there any structures to be replaced or altered? Yes X No_____

43. Will replacement by by: County_____ Contract_____
(NOTE: If by contract, fill out bridge questionnaire form.)

44. Will County adjust structure to new grade? Yes X No_____

45. Will County adjust structure to additional width? Yes X No_____

46. Will adjusted width be standard? Yes X No_____
(NOTE: Standard width of structure is 4 feet wider than wearing surface width. If structure is of substandard width, County must sign same to satisfaction of Bureau of Public Roads.)

Remarks_____

_____

47. Is project contingent upon other factors? Yes_____ No_____

48. Such as: (a) Construction (Cooperative project by County, tie-in with outside projects)

Explain:_____

_____

_____

_____

ccr 61-8

49. (b) Timing (Cooperative project by County, finance, irrigation, industrial usage, outside projects)

Explain: _____

_____

_____

_____

50. (c) Surveys (Coordination with outside surveys)

Explain: _____

_____

_____

MISCELLANEOUS -

51. Does County wish rounding of cutbanks? Yes___ No X

52. Does County wish sight posts installed? Yes___ No X

53. Does County wish guard rail installed? Yes___ No X

54. Does County wish seeding and mulching incorporated into job?

Yes___ No X

NOTE: Approach fills for pile bent structures must be in place prior to bridge construction.

Grant County

June 1, 1967 Date

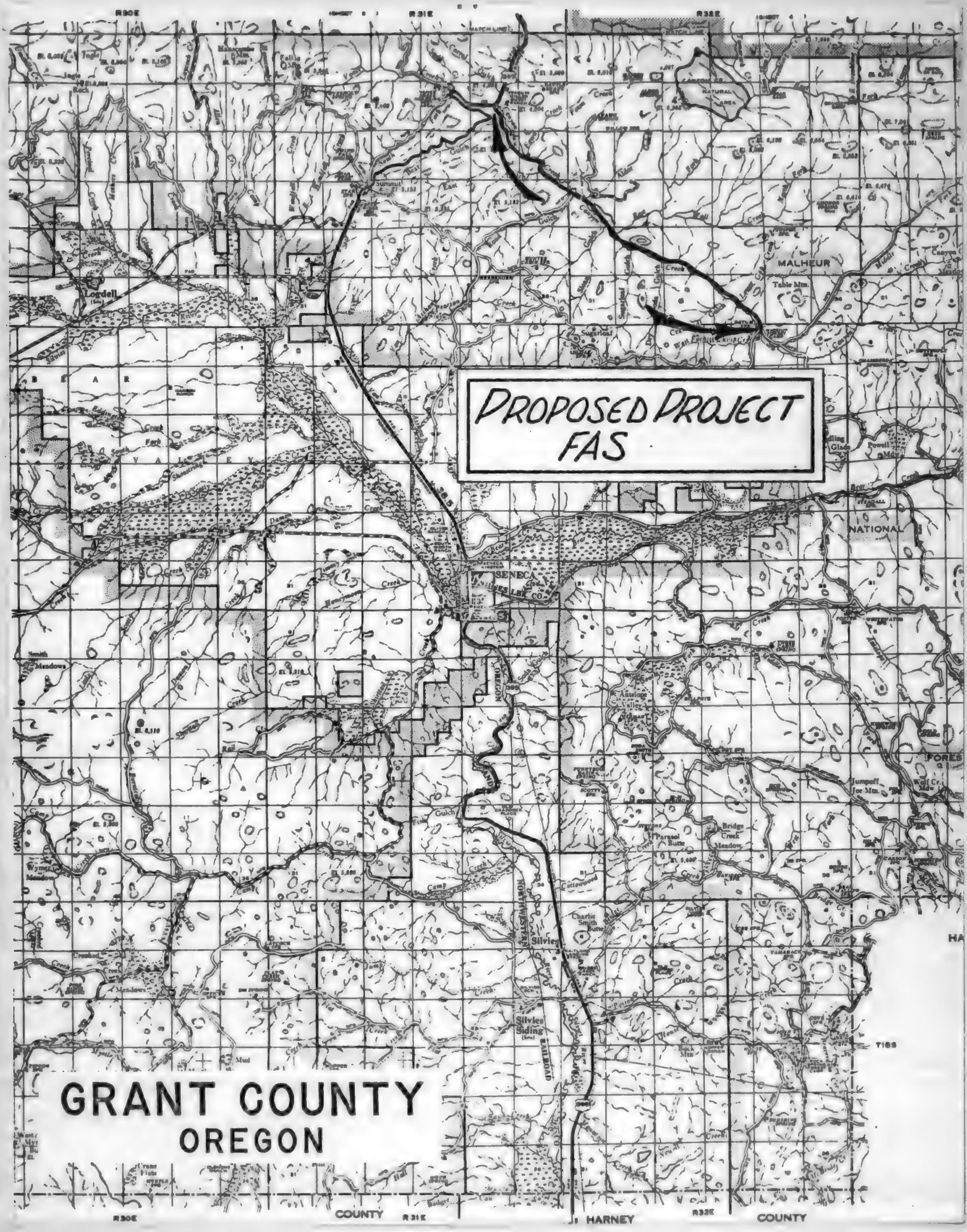
By Rhs Blenbrun
Judge or ~~Commissioner Chairman~~

By _____
County Engineer

_____
O.S.H.D. Field Engineer

Date _____

CCR 6-8


PROPOSED PROJECT
FAS
GRANT COUNTY
OREGON
R30E
R31E
R32E
COUNTY
HARNEY
COUNTY
Logdell
MALHEUR
Table Mtn.
Summit
Sugarloaf
NATIONAL
SENECA
Silvies
Silvies Siding
Charlie Smith Butte
Parsnip Butte
Bridge Creek Meadow
Antelope Valley
Jumpoff Joe Mtn.
Bull Mtn.
T18S
NORTHWESTERN
RAILROAD
OREGON

15-1153 Neil Creek Section, of the Pacific Hwy., S. of Ashland. 1969
#7304 (Slide correction)

RECEIVED
MAY 8 - 1970
FOR FILING

15-1153
7304

May 8, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed March 26, 1970, on Contract No. 7304. The contract was with Hughes and Dodd Company and was for slide correction on the Neil Creek Section of the Pacific Highway in Jackson County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective May 8, 1970, and that you concur in this procedure at the Commission meeting on June 2.

It is assumed that if you have no objections to this action and you do not advise us to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
V. E. Skogg
Ivan Merchant
F. D. Morgan
L. H. Young
C. T. Keasey

srb sr

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MAY 11 1970
FOR FILING

15-1153
7304

May 8, 1970

United Pacific Insurance Co.
P. O. Box 1788
Eugene, Oregon 97401

Gentlemen:

Contract No. 7304 awarded to Hughes & Dodd Company for slide correction on the Neil Creek section of the Pacific Highway in Jackson County was completed on March 26, 1970, and accepted by the Highway Commission on May 8, 1970.

Final payment in the amount of $11,525.65 will be released to the contractor after May 15, 1970. The total contract amount is $261,063.37 including $4,078.34 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

ej

cc Hughes & Dodd Company
P. O. Box 246
Medford, Oregon 97501

bc Frank Morgen
Ivan Merchant
V. E. Skoog
Attn: John Herr
Carroll T. Keasey

15-1153
7304

C

FORM E-1 (REV 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Neil Creek		WEEK ENDING: April 4, 1970
HIGHWAY: Pacific		SECTION PREFIX: 15-1153
		COUNTY: Jackson
NAME OF JOB: Neil Creek	KIND OF WORK: Slide Correction	
CONTRACTOR: Hughs & Dodd Company	CONTRACT NUMBER: 7304	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: September 2, 1969	DATE WORK STARTED: September 9, 1969	~~ESTIMATED~~ COMPLETION DATE: March 26, 1970
AVERAGE FORCE ON PROJECT FOR THE WEEK MEN: SUPERVISION	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS: 59	CALENDAR DAYS USED: 75
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 127
PROJECT AUTHORIZATION: $290,633.46	ENGINEERING AUTHORIZATION: $21,501.51	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $269,131.95	ENGINEERING COST TO DATE: $15,200.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $266,459.13		DATE PROJECT WAS COMPLETED: March 26, 1970
ESTIMATED PERCENT OVERRUN / UNDERRUN: 2 %	PERCENT OF AUTHORIZATION: 71 %	

Semi-final estimate will be submitted approx 4/10/70

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	~~MAINTENANCE~~		
100	100	99	100	100	Rock Bk, Fill		
			GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT			0.13	0.13			0.13
MILES PARTIALLY COMPLETED							
MILES COMPLETED			0.13	0.13			0.13
TOTAL ESTIMATED QUANTITIES (CONTRACT)			47,700	70	18,400		1,670
TOTAL QUANTITIES CORRECTED TO DATE			43,000	1,326	23,200		2,260
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE			43,000	1,326	23,200		2,260
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT							

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Fair			
MONDAY	Fair			
TUESDAY	Fair			
WEDNESDAY	Fair			
THURSDAY	Fair			
FRIDAY	Fair			
SATURDAY	Fair			

Routing
Morgan
Decker
Bond
Walker
Johnsen
Pat...
Swan
Glenn
Lickfield
Summer
Sch...

RECEIVED
APR 8 1970
CONSTRUCTION DIVISION

BEN GIFFORD

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	Project complete.
TUESDAY	Project complete.
WEDNESDAY	Project complete
THURSDAY	Project complete.
FRIDAY	Project complete.
SATURDAY	

REMARKS

This will be the last weekly report as semi-final will be submitted next week.

SIGNED B. E. Brown
Resident Engineer

LOCATION Medford

PRIME RESIDENT SUBMIT 4 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP°F216

RECEIVED
MAR 5 - 1970
FOR FILING

15-1153
7304

#4 C

39

February 10, 1970

Hughes and Dodd Company
P. O. Box 246
Medford, Oregon 97501

Gentlemen:

The State Highway Commission at its meeting on February 3, 1970, considered your request for a 30-day time extension on Contract No. 7304 for the Hail Creek Slide Correction Project on the Pacific Highway in Jackson County.

Careful consideration was given to the reasons you submitted. However, in light of the available facts and the provisions of the contract, the Commission granted you an extension of 14 calendar workdays without assessment of liquidated damages.

If there are pertinent facts which have not yet been considered, you should contact the Resident Engineer, the Division Engineer, or the Construction Engineer in the Salem office.

Very truly yours,

Floyd Osery, Secretary
OREGON STATE HIGHWAY COMMISSION

or

bc: F. D. Morgan
V. E. Skoog
C. T. Kenney
Bill Brown

UNITED PACIFIC INSURANCE COMPANY
A MEMBER OF UNITED PACIFIC INSURANCE GROUP
HOME OFFICE: TACOMA, WASHINGTON 98401
FIDELITY AND SURETY DEPARTMENT

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

That the UNITED PACIFIC INSURANCE COMPANY, a corporation of the State of Washington, having its principal offices in the city of Tacoma, Washington, pursuant to authority granted by By-Law No. 37-A of its By-Laws, which reads as follows:

"The President, any Executive Vice-President, any other Vice-President, any Assistant Vice-President, or any Resident Vice-President of this Corporation, shall have authority to appoint in writing such attorneys-in-fact as the business of the Company may require, and to authorize such attorneys-in-fact, and each of them, to execute on behalf of the Company, any bonds, recognizances, stipulations, contracts of indemnity and other undertakings of like character, or to exercise any lesser number of said powers as hereinbefore set forth.

"Said appointments shall be attested by the Secretary or an Assistant Secretary of this Corporation under its seal. The signature of the Secretary or any Assistant Secretary to certified copies of such powers of attorney may be original or facsimile, and when the corporate seal is affixed thereto, any third party may rely on said certified copies of powers of attorney as the act and deed of this Corporation. The President, any Executive Vice-President, any other Vice-President, any Assistant Vice-President, or any Resident Vice-President may revoke any appointment made pursuant hereto, and revoke any and all authority conferred by any such appointment."

does hereby nominate, constitute and appoint DON STATHOS of MEDFORD, OREGON

its true and lawful Attorney-in-Fact, to make, execute, seal and deliver for and on its behalf, as surety, and as its act and deed,

ANY AND ALL BONDS AND UNDERTAKINGS OF SURETYSHIP.

The execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Tacoma, Washington, in their own proper persons.

IN WITNESS WHEREOF, the UNITED PACIFIC INSURANCE COMPANY has caused these presents to be signed by its _____ Vice-President and its corporate seal to be hereto affixed, duly attested by its Assistant Secretary, this 29th day of November, 19 61.

UNITED PACIFIC INSURANCE COMPANY

Attest: s/ RUTH ENSTONE
Assistant Secretary

By s/ MORRIS E. BROWN
Vice-President (SEAL)

STATE OF WASHINGTON }
County of PIERCE } ss.

On this 29th day of November, 19 61, personally appeared MORRIS E. BROWN and RUTH ENSTONE, to me known to be the _____ Vice-President and Assistant Secretary, respectively, of UNITED PACIFIC INSURANCE COMPANY, and acknowledged that they executed and attested the foregoing instrument and affixed the seal of said corporation thereto, and that By-Law No. 37-A, set forth therein, is still in full force.

Witness my hand and seal hereto affixed the day and year first above written.

My Commission Expires January 18, 19 73.

s/ S. W. Hopkins
Notary Public in and for the State of Washington
Residing at Tacoma

STATE OF WASHINGTON }
County of PIERCE } ss.

I, GERRY L. WHITE Assistant Secretary of the UNITED PACIFIC INSURANCE COMPANY, do hereby certify that the foregoing instrument is a true copy of a Power of Attorney duly and regularly issued by said Company, and that the same is still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company at the City of TACOMA this 18th day of December, 1969.

Gerry L. White (SEAL)
Assistant Secretary

B-1027A General — Power of Attorney Rev. 11-66

S—000 (Rev.)—000—12-67

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date December 18, 1969

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 45 days to 75 days, within which to complete our Contract No. 7304, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

as per attached correspondance

Respectfully submitted,

Hughes & Dodd Co.
Contractor

By Cecil H. Hughes
Cecil H. Hughes, President

CONSENT OF SURETY

Date 18 December, 1969

We, United Pacific Insurance Company, as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Donald L. Stathos
Attorney-in-fact

(SEAL)

Frank Veon
Resident Agent

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7304 Contractor Hughes & Dodd Co.

Highway Pacific

Section Neil Creek

Kind of Work Slide Correction

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED**. The reasons for such recommendation are as follows: Recommend 14 days extension for work added under Extra Work Order No. 2 and Price Agreement No. 1 and overruns of contract items for rock backfill and A.C.

Recommended for Approval:

F. Kensey
Division Engineer

Construction Engineer or Bridge Engineer

Assistant State Highway Engineer

Contract No.	7304
Project designation	State (State-Federal)
Date awarded	9-2-69
Work started	9-9-69
Per cent completed	94% 11-30-69 (Date)
No. of Workdays Allowed	45
No. of Workdays Used	73
No. of Added Workdays Requested	30

RECEIVED
JAN 21 1970
FOR FILING

15 - 1153

7304

January 21, 1970

Oregon State Highway Commission

Gentlemen:

Request for Extension of Time
No. 4
February 3, 1970 meeting

Hughes & Dodd Company requests a 30-day time extension on the Hail Creek Slide Correction Project, Contract No. 7304, on the Pacific Highway in Jackson County. The contractor cites work added to the contract, overruns of contract quantities and alleged limitations imposed in the sequence of his excavating and backfilling operations.

After the project started, the settlement of the highway fill, including the traveled roadway, accelerated requiring immediate construction of a two-way shoofly detour around the troubled area in order to maintain traffic. This was done under an Extra Work Order and required two days. The same circumstance required extra work later in the project to restore the original four-lane roadway. This was done under an added Price Agreement and justified three additional days.

The dimensions of the rock backfill zone at the toe of the slide were increased from the plan to provide a greater area of stability to support the fill slope above. This increased the rock backfill bid item quantity some 27 percent and required an additional eight days. The paving bid item also overran due to necessity of replacing the complete paved surface where the roadway subsided. This additional paving required one additional day.

The special provisions pointed out the necessity for coordination of the excavation and backfilling operations to minimize the extent of excavation left open at any time. We believe the controls imposed by the State as the project progressed in this regard were in accordance with the specifications and are not cause for an extension of time.

I therefore recommend an extension of fourteen calendar workdays based on added work and overruns. Twenty-eight days liquidated damages have accrued, so fourteen days will remain in effect in the amount of $1,400 after the recommended extension. This is a State project.

This item will be on the agenda for the February 3 Commission meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
F. D. Morgan
V. E. Skoog
C. T. Keasey

JAB:ss mr

FORM S-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

January 15, 1970

SUBJECT: Request for Time Extension
Neil Creek Slide Section
Contract No. 7304

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

Hughes and Dodd Company has requested a 30-day time extension for what can be summarized as three basic reasons: (1) Added work (EWO No. 2 detour and P.A. No. 1 roadbed restoration on the main line); (2) Overrun in bid quantities (rock backfill and A. C. bid items); and (3) limitations on excavation and backfilling operations. Some pertinent dates for this project are as follows:

Bids Opened	August 28
Contract Sent	September 8
Day Count Started	September 19
45 Days Allowed Elapsed	November 2
Start of winter no count period	December 1

73 days elapsed
28 days liquidated damages @ $100 per day

This project had a tight completion time due to the lateness of the season when it was contracted. The bid amount was $229,605. There were tw o other bidders.

The unplanned addition of a detour around the slide area when subsidence accelerated required 2 days in September (EWO No. 2). Later in the project, work was added under P.A. No. 1 to provide select topping and base rock for a new roadbed across the slide area in the subsided area. This jus tifies 3 additional days making a total of 5 for added work.

The rock backfill item overran about 5,000 cubic yards (27 percent). The overrun quantity was placed from November 14 to 22 and justifies 8 additional days. The A. C. paving item also overran 30 percent due to the necessity of completely repaving through the subsided area. This justifies 1 additional day making a total of 9 days on quantity overruns.

We do not believe the third reason is valid for time extension. A special provision required that as soon as sufficient area of firm footing was exposed by excavation, the drainage facilities in that area were to be installed and rock backfill placed immediately. The intent of this was to avoid having a large excavation open at one time. This provision was enforced as the project was built, but we do not believe it was an unforeseen situation and is not a reason for increasing the time.

With a minimum contract time allowed and late in the construction season, we should consider the influence of poorer weather during the extended time. The 45 days allowed under the contract expired November 2. At that time, the grading was 56 percent done; rock backfill was 71 percent. Up to that time, the only recommended reason above that had occurred was the 2 days for the detour. In reviewing the weekly reports, we find mention of rain only 2 days in the month of November. We therefore do not believe the "bad days for good" reasoning should apply here.

We therefore recommend a 14 day extension for the added work and overruns. The project is currently under a stop work order with only a couple days of slope finishing left to do when weather permits. Twenty-eight (28) days liquidated damages have been charged to date. A 14-day extension would leave 14 days in effect at $100 per day. This is a State project. A rough draft letter to the Highway Commission is attached.

F. D. Morgan
Construction Engineer

By John A. Bond

John A. Bond
Construction Administration Engineer

JAB:fw
Attach.
cc V. L. Gallagher

RECEIVED
JAN 19 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JAN 16 1970
OFFICE OF
STATE HIGHWAY ENGINEER

PHONE 773-4588

HUGHES & DODD CO.

General Contractors

4048 CRATER LAKE HIGHWAY • P. O. BOX 246

MEDFORD, OREGON 97501

December 18, 1969

Oregon State Highway Department
B.E. Brown, Resident Engineer
North Pacific Highway
Medford, Oregon 97501

RE: Liquidated Damages
Neil Creek Slide Correction
Contract # 7304

Dear Sir;

In accordance with article 8-8 of the standard specification regarding time for performance of contract, we wish to request an increase in contract time for completion of work on the above project, without assessment of liquidated damages, due to the following conditions which delayed and prevented completion of the work.

WE started excavation on the project on Friday September 12th, 1969 Monday morning September 15th it was apparent that the slide was moving down the slope requiring excavation of material below grades set by Oregon State Highway Department Engineering crew at stations 291+00 to 292+00. This condition continued requiring patching in the paved area of the freeway September 17,18,19,20,21,22and 24th all of the time our excavation operation had continued.

On September 24th it became apparent that we would not be able to maintain traffic on the freeway by patching only and it was decided to construct a detour around this section. This work was done on force account and required the beter part of two days, September 24th and 25th.

By this time the material had moved outside the original cut areas between station 289+50 to 291+00 and the bench areas from station 291+00 to 292+75 had slipped out and been removed. All this time rock backfill material could not be hauled or placed because it was impossible to put in the perforated pipe.

October 1st, we were able to start our rock backfill operation. We were requested by our inspector not to excavate past station 292+50 untill we had sufficient rock backfill to counteract the movement of the slide. On October 11, we had approximately 6000 cu. yards rock backfill and we were allowed to resume our excavation operation.

From October 16th to October 21st, our rock backfill operation was delayed because of lack of excavation ahead. This condition continued through the complete project with only the excavation or the rock backfill operation operating to any extent, due to the movement of the slide.

On November 14th we had the bid quantity of rock backfill on the project, however we were intil November 22nd hauling and placing this item due to the overrun.

The freeway by this time had sunken as much as 13 feet and we had to haul select earth embankment to fill this. On November 14th we

PHONE 773-4588

HUGHES & DODD CO.

General Contractors

4048 CRATER LAKE HIGHWAY • P. O. BOX 246

MEDFORD, OREGON 97501

December 18, 1969

signed a price agreement to haul and place select quarry rock and 1½"-0 crushed base rock to establish a base for paving the freeway section. The hauling and placing of this material started on November 18th and was not compleded until November 25th.

The paving of the freeway section was completed on November 26th and reopened to traffic requiring one more day of force account.

We feel that we had sufficient equipement on the project at all times to complete the job as planed when the contract was signed and that the over run in work days were due to the change in conditions as above stated.

Therefor we request an extension of contract time of 30 work days. Please give this your consideration. We will be happy to foward any additional information if needed to help in determining this request.

Thank you

Hughes & Dodd Co.

By C. H. Hughes

By Cecil H. Hughes, President

CHH/en

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7304 Contractor Hughes & Dodd Co.

Highway Pacific

Section Neil Creek

Kind of Work Slide Correction

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED**. The reasons for such recommendation are as follows: **Recommend 14 days extension for work added under Extra Work Order No. 2 and Price Agreement No. 1 and overruns of contract items for rock backfill and A.C.**

Recommended for Approval:

C. F. Kenagy
Division Engineer

F. L. Bond
for Construction Engineer or Bridge Engineer

B. H. Kahoe
Assistant State Highway Engineer

Contract No.	7304
Project designation	State (State-Federal)
Date awarded	9-2-69
Work started	9-9-69
Per cent completed	96% 11-30-69 (Date)
No. of Workdays Allowed	45
No. of Workdays Used	73
No. of Added Workdays Requested	30

B—320 (Rev.)—616—10-67

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon

Date December 18, 1969

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 45 days to 75 days, within which to complete our Contract No. 7304, without the assessment of liquidated damages. The said contract is described as follows:

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

as per attached correspondance

Respectfully submitted,

Hughes & Dodd Co.
Contractor

By Cecil H. Hughes, President

CONSENT OF SURETY

Date 18 December, 1969

We, United Pacific Insurance Company

, as surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

Donald L. Stathos
Attorney-in-fact

(SEAL)

Frank Venezia
Resident Agent

RECEIVED
JAN 19 1970
FOR FILING

15-1153
1314

January 19, 1970

Oregon State Highway Commission

Gentlemen:

An overrun of the project authorization on Contract No. 7304, the Hell Creek Slide Correction project on the Pacific Highway in Jackson County, is certain. Hughes and Dodd Company of Medford is the contractor. This is a State project for which the original authorization was $271,157.96. The present anticipated cost is $290,633.46, indicating an overrun of $19,475.50 or 7.18 percent.

The major reason for this overrun is the accelerated subsidence in the project area. This required construction of a detour and a complete resurfacing and paving to restore the four-lane roadway. This work involved additional rock for backfill and surfacing plus additional asphalt concrete. The rock backfill zone in the toe was also increased for added stability.

This request for an additional authorization will be presented to you at the February 3 meeting and your approval is recommended.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
E. B. Klaboe
V. D. Wolfe
L. H. Young
V. H. Skoog
C. T. Keasey

DES:fw sr

FORM E-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
January 15, 1970

SUBJECT: Overrun of Project Authorization
Neil Creek Slide Section
Pacific Highway
Contract No. 7304

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

Attached is a report on an expected overrun of the project authorization on the subject contract. This project for slide correction is under contract to Hughes and Dodd Company of Medford. The original project authorization was $271,157.96. The present anticipated cost is $290,633.46 indicating an overrun of $19,475.50 or 7.18 percent.

The major reason for this overrun is the accelerated subsidence in the project area. The roadbed settled as much as 12-1/2 feet during foundation excavation work which then required construction of a detour and a complete resurfacing and paving to restore the four-lane roadway. This work involved additional rock for both backfill and surfacing plus an overrun in asphalt concrete. The rock backfill zone in the toe was increased for added stability resulting in a 27 percent overrun of this item (partially offset by a smaller amount of select embankment over the rock.).

It is recommended that the project authorization be increased by $19,475.50. A rough draft of a letter to the Highway Commission is attached.

F. D. Morgan
Construction Engineer

By John A. Bond

John A. Bond
Construction Administration Engineer

JAB/DES:fw

Attach.

cc V. L. Gallagher

RECEIVED
JAN 15 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Form E-378 (Rev. 10-68)

OREGON STATE HIGHWAY DEPARTMENT

15-1173
73-4

Expected Overrun of Project Authorization

Project Neil Creek Slide — Date January 6, 1970

Highway Pacific — Contract No. 7304

County Jackson — Kind of Work Slide Correction — Contractor Hughs and DoddCo

	Authorized	Estimated
Contract Amount	$229,605.70	$247,133.20
Anticipated Items	9,300.00	8,000.00
Contingency (4½%)	10,750.75	13,998.75
Engineering	21,501.51	21,501.51
Credits		
PROJECT COST	$271,157.96	$290,633.46
NET INCREASE $		19,475.50 or 7.18%

MAJOR OVERRUNS AND UNDERRUNS (Describe Briefly)

(Indicate whether contract (C), anticipated (A), or unanticipated (U). (List all unanticipated items)

	Expected Amount	Net Change
(C) Item # 5 Rock Backfill	$94,000.00	+ 20,400.00
(C) Item # 3 Emb. Fnd. Exc.	55,250.00	- 6,760.00
(C) Item # 11 Class B Asphalt Concrete	$32,775.00	+ 7,725.00
(U) PA # 1 Quarry Run & 1 1/2 Base Rock	10,998.75	
(U) SFO # 1 Horizontal Drilling	3,000.00	+ 13,998.75

APPROVED BY
STATE HIGHWAY COMMISSION
DATE 2-3-70

Principal reasons for overruns (Continue on reverse side): It was anticipated that roadway would stay in place during correction work. This proved wrong and it was necessary to construct detour around slide and completly rebuild surfacing on sliding section.

INSTRUCTIONS: A report on this form is to be submitted if and when it becomes evident that the project cost will exceed the original project authorization by more than five per cent and again if and when it becomes evident that the project cost will exceed by more than five per cent a subsequently approved increased project authorization. Submit five copies to Salem. After having been noted by the Deputy or Assistant State Highway Engineer, one copy will be sent to the Division Engineer and one copy to the Resident Engineer.

Submitted by B. B. Brown — Resident Engineer

Noted by Robert L. Bork for — Construction or Bridge Engineer

Confirmed by John Adams II — Asst Division Engineer

Noted by J. X. Labbe — Assistant Engineer State Highway Engineer

SP-23769-734

RECEIVED
SEP 29 1969
FOR FILES

15-1153
1304

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

September 25, 1969

SUBJECT:

To:

Mr. C. T. Keasey
Division Engineer
State Highway Department
P. O. Box 1128
Roseburg, Oregon 97470

Attached find specifications of the neon "SLOW" sign as was discussed between Resident Engineer, Bill Brown, F. D. Morgan and myself. There is no standard drawing of this sign. It was thought that this sign might be considered for use on the Neil Creek project above the slide and on the northbound lane. This type of sign has been considered to be very effective where used prior to approaching a detour area such as the one on your project.

Jim Gix was contacted to see if they might have such a sign, but they do not have any at this time. Mr. Gix says the signs which are in use at like areas in the state were made by the Oregon Sign and Neon Company in Portland, Oregon at a cost of approximately $400. This cost does not include installation or providing electric power.

F. D. Morgan
Construction Engineer

By John H. Walker

John H. Walker
Field Construction Engineer

JHW:fw
Attach.
cc F. B. Klaboe
Bill Brown

RECEIVED
SEP 29 1969
STATE OF OREGON

RECEIVED
SEP 8 - 1969
FOR FILING

15-1153

7304

September 8, 1969

Hughes & Dodd Co.
P. O. Box 246
Medford, Oregon 97501

Gentlemen:

Enclosed are three copies of Contract No. 7304 for $229,605.70 awarded to you by the State Highway Commission on September 2, 1969. This contract is for slide correction on the Neil Creek Section of the Pacific Highway in Jackson County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar workday count on this contract will begin September 19, 1969.

Very truly yours,

Floyd Emery, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Gaibel (SAIF)
C. T. Keasey
B. E. Brown

RECEIVED
AUG 1 - 1969
FOR FILING

15-1153
7304

August 1, 1969

Oregon State Highway Commission

Gentlemen:

On the 1969 approved State Construction Program is a slide correction job at Hail Creek on Interstate 5 in Jackson County for an estimated cost of $100,000.

Detailed investigation and study indicates that more elaborate measures will be necessary to effectively correct this condition, and it is now estimated that the work will cost approximately $200,000. It is requested that you approve this increase and authorize the early contracting of this urgently needed work.

The matter was verbally approved by Chairman Jackson on July 31 and will appear on the August 19 agenda for your confirmation.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

cc: Floyd Quary
F. B. Klaboe
D. J. Barbee
F. D. Morgan
L. H. Young
V. E. Skoog
C. T. Keasey
V. D. Wolfe

RLP:ms sr

RECEIVED
JUL 31 1969

FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

E 15-1153
7304

TO: Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: July 28, 1969

In reply refer to: 08-35-DB

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-5-1( )009, Neil Creek Slide
Participation in Costs of Slide Correction

2717
2678

Your June 11, 1969 letter requested Interstate fund participation in slide correction work at the Neil Creek slide.

The following additional information has been requested to aid in the evaluation of your request.

1. A detailed analysis of the proposed work which shows appropriate soil parameters, ground water levels, and depth to failure plane. Some definite means of locating the sheared zone is necessary, such as inclinometer data, or clearly defined slickensides within extracted soil and rock samples. The failure depth is most important since the forces involved will determine the sizing of the rock buttress.

2. A comparison between original design and existing failure correction showing basis for change in design condition.

3. A general discussion of construction methods used in the fill placement; viz., step benching into old ground, drainage methods, etc.

Because of the urgency of getting a decision in this matter we have been in contact with Mr. G. L. Decker and advised him of the needed additional information.

7-31-69

By Asst. State Hwy. Engr

RECEIVED
JUL 29 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JUN 12 1969
FO
15-1153
7304

June 11, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Dear Sir:

Re: Neil Creek Slide, South Ashland-Wall Creek Section,
Oregon Project No. I-5-1(-)009, Jackson County

We hereby request your concurrence that the fill slide correction work required at the Neil Creek Slide area to eliminate further damage to the Interstate highway, between Stations 291 and 296, is eligible for Federal-Aid Interstate funding. This request is based on the facts and data outlined below and attached.

During construction of the South Ashland-Wall Creek Section, Project No. I-5-1(49)009, a fill slope slide developed on the southeast side of the roadway between Stations 290 and 292. This slide was noted in the Area Engineer's intermediate construction inspection report of June 15, 1965. An extra work order to correct the slide condition by excavating a toe trench and backfilling with rock was approved. The corrective work was accomplished and, to all indications, had remedied the condition at the time of the Area Engineer's final report of October 28, 1965.

The fill slide (in the area of Station 292) reactivated during the winter of 1965-66, and its subsequent movement caused cracks across all four lanes of the highway at the southerly end and a very apparent dip across all four lanes at the northerly end. On July 7, 1966, we requested your concurrence that the slide correction work was eligible for Interstate funding. Your letter of July 15, 1966, informed us that the work was not eligible for Interstate funds because you considered the slide correction major reconstruction work on an existing embankment and that the project had been accepted by the Bureau of Public Roads as completed. The Highway Department awarded a State-financed slide correction project on August 23, 1966, and expended $43,791 on corrective measures.

The slide again reactivated during the winter of 1968-69 in the area of Station 292 southerly to Station 296. The enclosed photographs very clearly show the slide movement. The enclosed profile shows the ground line (outlined in green) as of May 7, 1969, from Station 290+50 through 296+00 and indicates how the slide is undercutting the highway facilities as it progresses.

The enclosed profile shows (outlined in orange) the proposed plan to correct the situation by excavation and backfill of a trench section with rock and placing selected backfill material to bring the fill to a reasonable cross section. Drains will be introduced to provide positive drainage for the water which now saturates the area, causing the slippage. The estimated cost of the work is $200,000.

The entire fill area from Station 290 to Station 296 had exhibited a slide tendency prior to the construction of Project I-5-1(49)009 when the area was occupied by the old Pacific Highway. This fact was known by our personnel but, due to the apparent stabilization of the slide by the corrective measure set forth in the second paragraph, no mention of a slide condition was made in the Bureau of Public Roads' Area Engineer's final report or our request for Bureau of Public Roads' acceptance of Project I-5-1(49)009. This oversight led to the Bureau of Public Roads' refusal of Interstate funding of the 1965-66 slide at Station 292 as set forth in the third paragraph.

The slide has reactivated during the winter of 1968-69, to the south of Station 292 and extends to Station 296. The area from Station 290 to 292 has, to all indications, been stabilized by the corrective work under the original project and the State project. We are of the opinion this new slide activity is a continuation of the original slide activity which was encountered under Project I-5-1(49)009 and that the corrective work should be eligible for Interstate funding. We base this opinion on the fact that the slide has reactivated almost every winter since the completion of Project I-5-1(49)009, indicating such a slide condition did exist at the time of the project acceptance by the Bureau of Public Roads.

We trust this information will permit your approval of Interstate funding of the corrective work required at the Neil Creek Slide area on I-5.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
L. H. Young
F. D. Morgan
R. W. Ellison
B. L. Gifford
R. N. Chase

Encs.

RNC:aw srb

TABULATION SHEET

SHEET ... OF ... SHEETS

OREGON STATE HIGHWAY DEPARTMENT

NEIL CREEK SLIDE ESTIMATE

	NET	ALLOW	TOTAL	UNIT	UNIT COST	AMOUNT
1. Embankment Fd. Exc.	45,702	4,288	50,000	Cu. Yd.	$ 0.90	$ 45,000.
2. Extra for Selected Earth Embankment Material	20,382	1,618	22,000	Cu. Yd.	0.70	15,400.
3. Rock Backfill	19,791	2,209	22,000	Cu. Yd.	3.50	77,000.
4. Trench Excavation	145	15	160	Cu. Yd.	6.00	960.
5. Special Backfill in Drains	145	15	160	Cu. Yd.	10.00	1,600.
6. 8" Drain Pipe	540	60	600	Lin. Ft.	3.50	2,100.
7. 12" Drain Pipe	225	25	250	Lin. Ft.	4.00	1,000.
8. Class "F" A. C.	1,880	120	2,000	Ton	10.00	20,000.
9. Guard Rail (Salvage & Reinstalled)	600	60	660	Lin. Ft.	3.00	1,980.
10. Median Rail (Salvage & Reinstall)	600	60	660	Lin. Ft.	4.00	2,640.
						$167,660.
			Engineering & Contingencies			32,320.
			Total Cost			$200,000.

RECEIVED
APR 25 1969
FORM E-20 (12-67)
FOR FILING

15-1153
7304

OREGON STATE HIGHWAY DEPARTMENT
INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 24, 1969

SUBJECT: Neil Creek Slide
Pacific Highway
Jackson County

To: MEMO TO THE FILES

NOTED
R. L. PORTER

The northerly break of this slide crosses the northbound centerline at Station 292. The southerly break crosses at Station 294+50. This location is just southerly of the Information Center south of Ashland.

An inspection of the slide was made in company of R. J. VanCleave on April 17. On this date, maintenance forces had nearly completed the operation of restoring the slide area to profile grade.

Downhill exploration drilling, delayed by saturated soil conditions, is near completion. Drilling will be carried out on the uphill side to explore the possibility of cutting off underground water flow by a vertical trench.

This is an old slide area where tunnels were dug as a corrective measure many years ago. While it was believed all were located, drained and backfilled during recent construction, it is now suspicioned some were missed. Also, rumors have developed that an old creek pipe failed, was abandoned and a lateral installation was made which may be contributing some water flow.

The above factors will be taken into account in upcoming corrective measures. All drilling is expected to be completed this week or soon after. A final recommended plan should be ready for submission by May 5.

At this time, it appears that corrective measures would be on the downhill slope, and similar to measures taken in 1966 directly to the north of the present movement. In this event, ~~would~~ should not be undertaken until late August or early September, at which time the driest possible conditions should exist.

Recent pictures of the slide are attached.

ORIGINAL SIGNED by G. L. DECKER

GLD:fw
cc: F. B. Klaboe
L. H. Young
C. T. Keasey
R. J. VanCleave

G. L. Decker
Assistant Construction Engineer

NOTED
F. B. KLABOE

RECEIVED
APR 24 1969
OFFICE OF
STATE HIGHWAY ENGINEER

APR 1969

View from Sta 295+50 showing area of roadbed failure during patching operation.

APR 1969

View from Sta 295 showing area built up with rock to replace shoulder area for patching.

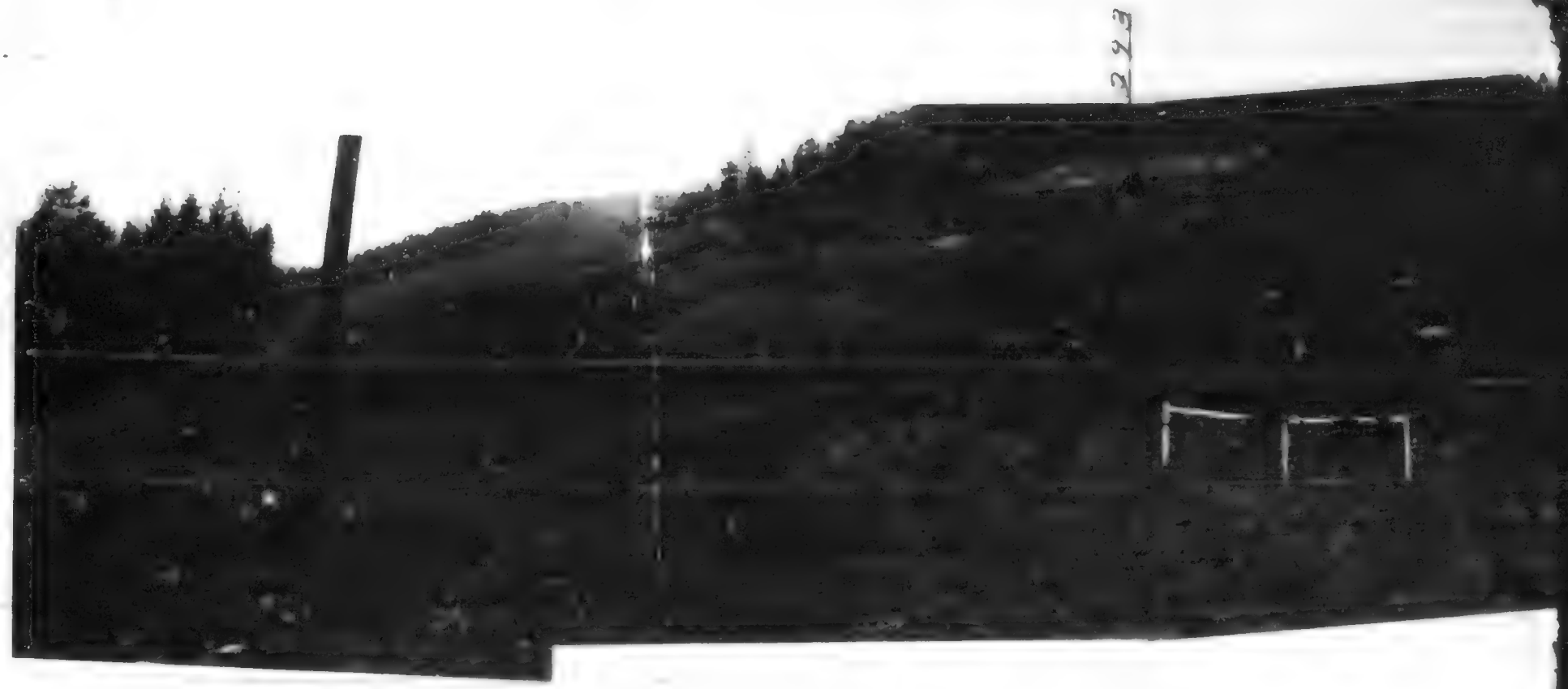
Axe for drill equipment needed

Neil Creek Slide
Pacific Highway
Jackson County
4-21-69

Neil Creek Slide
Pacific Highway
Jackson County
4-21-69
Panoramic View from sout

No 2

Neil Creek Slide
Pacific Highway
Jackson County
4-21-69
Panoramic View from southerly end of toe.



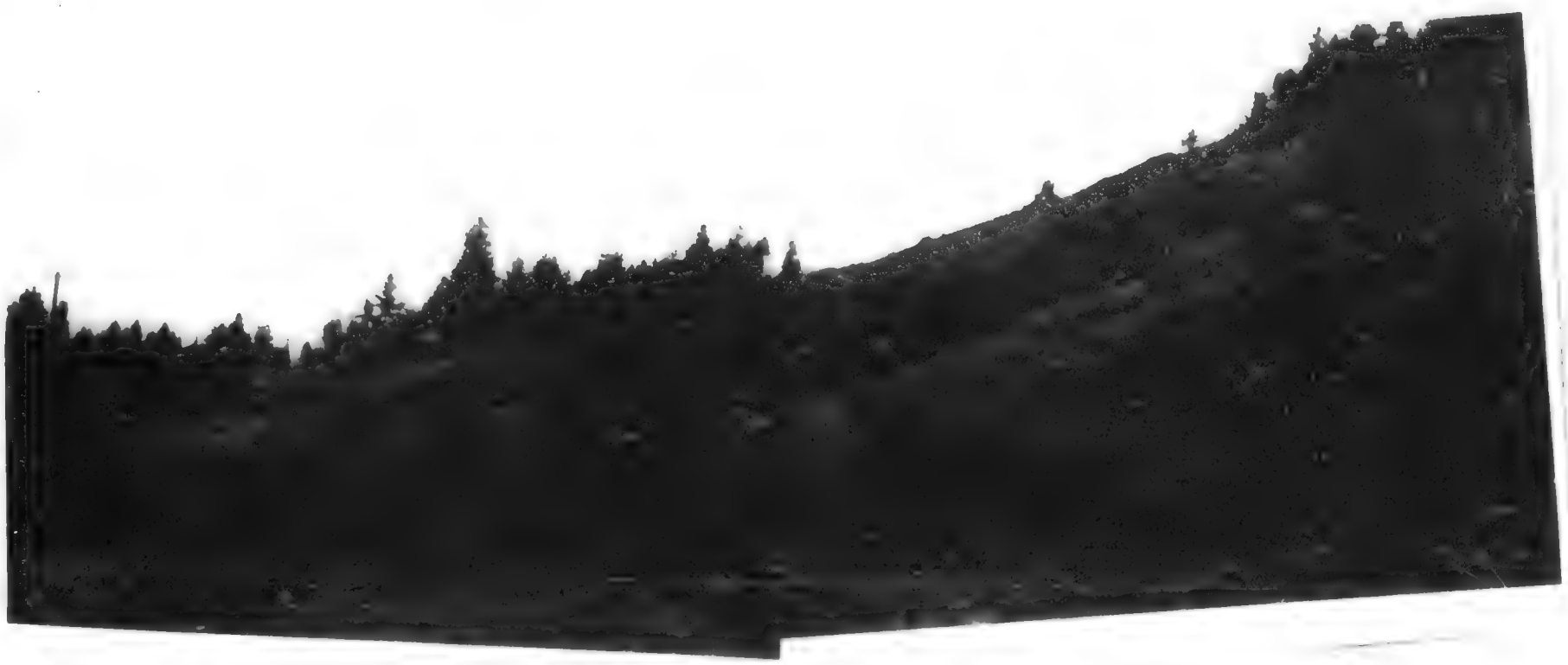
Neil Creek Slide
Pacific Highway
Jackson County
4-21-69
Panoramic View from northe
Dashed area indicates appr

No. 3

Neil Creek Slide
Pacific Highway
Jackson County
4-21-69
Panoramic View from northerly end of toe.
Dashed area indicates approximate location of rock inlay placed August 1966.

Neil Creek Slide
Pacific Highway
Jackson County
4-21-09
Panoramic View of upper portion of slide.

IVc 4



View from northerly end of slide area looking southerly

View of southerly edge of slide area looking from the middle of the slide.

Neil Creek Slide
Pacific Highway
Jackson County

APR 1939

RECEIVED
MAR 3 • 1969
FOR FILM

15-1153
7304

2717
2674

February 28, 1969

Oregon State Highway Commission

Gentlemen:

A fill slide has developed at M.P. 304.8 on Interstate 5 adjacent to the Nail Creek Slide that was repaired in 1966.

The correction of this slide problem involves installation of a drainage system to get the water out of the fill and construction of a rock inlay at the bottom of the fill to prevent further movement. Damage to the roadway caused by the slide will have to be repaired. This will include resurfacing, adjusting drainage facilities, adjusting guardrail and median barrier.

The estimated total cost of the slide correction will be $100,000, and I recommend that you approve this as an item of State Construction to be added to the current State Construction Program. It is not eligible for Interstate financing. This project is tentatively scheduled for letting this June.

This matter will appear on the agenda for the March 11 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

BG:ia lms
bc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
Victor D. Wolfe
L. H. Young
C. H. Maison
D. J. Barbee
E. S. Hunter
F. D. Morgan

FORM E-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem Office

January 28, 1969

SUBJECT: Slide, MP 308.8, I-5

To: Mr. F. B. Klaboe
Assistant State Highway Engineer
B u i l d i n g

On January 16, 1969, G. L. Decker and Frank Hall, made a field inspection of the slide at MP 308.8, I-5, with William Brown, Resident Engineer, and R. J. Van Cleve, Division Geologist. Construction of a detour was in progress in case it is needed. A pipe was being installed down the median to carry surface water around the slide break. Movement of the slide had slowed down to about four inches in twelve hours but will probably continue some movement every time it rains enough to get lubricated.

The fill failure occurred adjacent to the Neil Creek Slide Section constructed in 1966 at a cost of $40,700. The area stabilized with this work has not moved.

Investigation of the cause of this slide has shown that the embankment foundation trench constructed parallel to the highway alignment in the original embankment construction is probably trapping water that is saturating this area.

It is recommended that an attempt be made to auger a hole into the side of the fill to drain this trench. It may be necessary to go into the fill with tunnel liner if an auger cannot be used. This work should be started at once while conditions causing the slide exist. The cost would be about $1,000 for the augered hole or $8,000 for tunnel liner.

Unless this water can be taken out of the embankment trench, a project on the same plan used in 1966 must be done next summer. This will cost about $50,000.

Attached are prints of the Neil Creek Slide Section with proposed work to be done shown in red.

Frank L. Hall

FRANK L. HALL
Assistant Design Engineer

FLH/bdr
Attach.

BEN GIFFORD

Routing

Barbee — Trout
Hall — Wills
A. Olson — Hackleman
Sample — Scott
Terpin — R. Olson
Swenson — Carstensen

RECEIVED
FEB 4 1969
DESIGN DIVISION

RECEIVED
JAN 28 1969
OFFICE OF
STATE HIGHWAY ENGINEER

FORM C-20X—0058—7-66 SP°23811-794

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
January 13, 1969

SUBJECT: Slide, MP 308.8, I-5

To:

MEMO TO THE FILES

Barbee, Hall, A. Olson, Sample, Terpin, Swenson, Trout, Wills, Hackleman, Scott, R. Olson, Carlsenson

RECEIVED
JAN 14 1969
DESIGN DIVISION

Mr. Keasey advised by telephone this date that there is a continuing slide problem at MP 308.8, I-5. This is just south of the Siskiyou Rest Area adjacent to the area which slid previously and was corrected in 1966.

The outside northbound lanes have dropped approximately 3 feet in the last 3-4 weeks. This dropoff tapers to 0 on the right-hand side of the southbound lanes. Therefore, the settlement is across the entire width of the 4 lanes. Approximately an 8-inch dropoff occurred last night, January 12.

An extra gang has been moved in to patch out the settlement and also to patch out a shoo-fly on the random fill adjacent to the southbound lanes which will provide a full shoo-fly in the event of further settlement.

Keasey does not see how it would be possible to trench or rock the toe in an attempt to support this fill at this time of the year and feels it best to attempt to patch out the existing settlement and use the shoo-fly in case of an emergency. As soon as the shoo-fly is patched out, it would be possible to put it into use in less than two hours.

E. S. Hunter
Maintenance Engineer

By ORIGINAL SIGNED BY R. N. BOTHMAN

Robert N. Bothman
Assistant Maintenance Engineer

RNB:je

cc: Tom Edwards

16-3312 Peter Skene Ogden Scenic State 1969
Wayside on The Dalles-Calif. Hwy.
#7305 N. of Redmond

16-3313
7434

FORM S-1 (REV. 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: The Cove Palisades State Park		WEEK ENDING: October 23, 1970
		SECTION PREFIX: 16-3313
HIGHWAY: --		COUNTY: Jefferson
NAME OF JOB: The Cove Palisades State Park	KIND OF WORK: Overnight Camp Area	
CONTRACTOR: Louis Kowolowski	CONTRACT NUMBER: 7434	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: July 31, 1970	DATE WORK STARTED: August 13, 1970	ESTIMATED COMPLETION DATE: Feb 28, 1971
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 12 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $262,703.41	SPECIFIED COMPLETION DATE: Feb. 28, 1971	PERCENT OF TIME ELAPSED: 36%
EXCLUSIVE OF ENGINEERING: $241,872.30	ENGINEERING AUTHORIZATION: $20,831.11	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 16%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $241,872.30	ENGINEERING COST TO DATE: $7,656	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 15%
ESTIMATED PERCENT: OVERRUN / UNDERRUN: 0 %	PERCENT OF AUTHORIZATION: 36½%	DATE PROJECT WAS COMPLETED:

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.	Bldgs.	Elect.	Water
95	95	93	0	0	50%	0	90	90

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)	8,000 CY	5,776 CY			2,200 T
TOTAL QUANTITIES CORRECTED TO DATE	8,000 CY	5,776 CY			2,200 T
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	7,500 CY	0			0
AVERAGE DAILY QUANTITIES	100 CY	0			0
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME	4 CY	45 CY			17 T
NUMBER OF SHIFTS PER DAY	1	0			0
HOURS PER SHIFT	8	0			0

EQUIPMENT USED DURING THE WEEK:

Dozer, Truck, Scraper, 2-Backhoes, Compressor, Loader

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

		WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	18	Showers			
MONDAY	19	Overcast			
TUESDAY	20	Overcast			
WEDNESDAY	21	Rain			
THURSDAY	22	Overcast			
FRIDAY	23	Rain/Overcast			
SATURDAY					

Routing

Morgan — Pease

Decker — Swan

Bond — Glenn

Walker — Litchfield

Boehme — Supervisor

Johnsen — Stein

RECEIVED
OCT 26 1970
CONSTRUCTION
DIVISION

BEN GIFFORD

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	Placing water and pressure in 3" and 2" water mains.
MONDAY	Installing electrical conduits/posts Exc. for and installation of water faucets. Grading no activity.
TUESDAY	Same as Monday Crusher (commercial) producing aggregate subbase and drainfield backfill.
WEDNESDAY	Shooting in cut station 15. Exc for and installation of water faucets. Installation of electrical conduits/posts. Crusher same as Tuesday.
THURSDAY	Blade and scraper working station 10 to station 5, loader in cut station 15, truck hauling to station 2+50 (shot rock). Completed water faucets, testing water system. Electricians installing electrical conduits/posts. Crusher same as Tue. and Wed.
FRIDAY	Crusher producing aggregate subbase and drainfield rock. Installion of electrical junction boxes. Testing and backfilling(by hand) water lines. Scraper working station 5 to station 17. Survey crew re-running center line.
SATURDAY	

REMARKS

O. B. Jackmond and Pakistanian Engineer on project Monday.

Next Week: Finish subgrade, haul and place subbase, and start bldgs.

SIGNED H H Robertson LOCATION Bend, Oregon 97701

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

1 BP-F216

RECEIVED
MAY 29 1970

FOR FILING
16-3312
7-13

May 29, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed April 29, 1970, on Contract No. 7335. The contract was with All-City Landscape and was for rest room facilities on the Peter Skene Ogden State Wayside Section in Jefferson County.

As the contractor has completed all work according to specifications, I recommend that you accept the project.

This matter will be on the agenda for the June 2 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
Ivan Marchant
F. D. Morgan
L. H. Young
J. F. Putnam

srb sr

RECEIVED
MAY 29 1970
FOR FILING

16-3312

7315

May 29, 1970

U. S. Fidelity and Guaranty Co.
XXX Oregon Bank Building
Portland, Oregon 97204

Gentlemen:

Contract No. 7305 awarded to All-City Landscape, Inc., for rest room facilities in Peter Skene Ogden State Wayside in Jefferson County was completed on April 29, 1970, and accepted by the Highway Commission on May 29, 1970.

Final payment in the amount of $1,632.50 will be released to the contractor after June 5, 1970. The total contract amount is $16,606.42 and no work was performed under Force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Omey, Secretary
OREGON STATE XXXXXX Commission

fhm

cc All-City Landscape, Inc.
20 N.E. 148th Avenue
Portland, Oregon 97230

Frank Morgan
Ivan Hazelhurst
V. H. Young
Attn: John Kerr
J. F. Peterson

RECEIVED
OCT 2 - 1969
FOR FILE.

16-3312
7305

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 25, 1969

To: Mr. J. F. Putnam
Division IV Engineer
P. O. Box 1249
Bend, OR 97701

SUBJECT: Peter Skene Ogden State Park
Contract No. 7305
Collier Memorial State Park
Contract No. 7307
Goose Lake State Recreation Area
Contract No. 7308

We request the septic tanks on subject contracts be changed to one 5,000-gallon tank.

Please proceed with price agreements for this work.

Herron H. Gaskill, Assistant
State Parks Superintendent

WHG:al

cc: R. H. Clark
P. O. Box 1249
Bend, OR 97701

H. D. Krahbiel
Resident Bridge Engineer
2557 Altamount Dr.
Klamath Falls, OR 97601

NOTED
LLOYD P. SHAW

RECEIVED
SEP 8 - 1969
FOR FILING

16-3312

7305

September 8, 1969

All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

Enclosed are three copies of Contract No. 7305 for $25,050 awarded to you by the State Highway Commission on September 2, 1969. This contract is for a toilet building in Peter Skene Ogden State Wayside in Jefferson County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The completion date on this contract is May 1, 1970.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Gaibel (SAIF)
J. F. Putnam
R. H. Clark
David Talbot

I-5-2(63) Speaker Rd., Wolf Cr. & Sunny 1969
73 Valley Interchanges, Pac. Hwy., N.
#7306 of Grants Pass (Rdside. improve.)

*7306 STATE COPY

Monthly transaction number 5-81	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION Bureau of Public Roads	State Oregon
Project report number 9	**MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT** (PPM 21-7) 5-17-72	County Josephine
Modification number 2		Project number I-5-2 (63) 73

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 19, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 54,436.00	$ 54,740.05
Federal funds	$ 50,200.00	$ 50,508.64
Other revisions		

This modification is made for the following reasons:

Based on Final Voucher

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 17th day of May, 1972.

Oregon State Highway Division
(Official name of Highway Department)

By E. J. Hunter

Assistant State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

By W. C. Backlund
(Division Engineer)
For R. E. Simpson

Form FR-2A (Rev. 4-70) Existing stocks of Form FR-2A (Rev. 10-68) will be used.

STATE COPY

Monthly transaction number	FP PR-2A (1. 10-68)	State
- . 4-72	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION BUREAU OF PUBLIC ROADS	Oregon
Project report number: 6	**MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT** (PPM 21-7) 4-21-70	County: Josephine
Modification number: 1		Project number: I-5-2(63)73

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 19, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 51,744	$ 54,436
Federal funds	$ 47,700.00	$ 50,200.00
Other revisions		

This modification is made for the following reasons:

Based on revised project agreement estimate.

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 21st day of April, 1970.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By _____

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)

For: R. E. Simpson

Oregon State Highway Division

Federal-Aid
Project No. I-5-2(63)73

SPEAKER ROAD, WOLF CREEK AND SUNNY VALLEY INTERCHANGES

PACIFIC HIGHWAY IN JOSEPHINE COUNTY

SALEM, OREGON, APRIL 13, 1970

Revised Project Agreement Estimate.

Type Code Y003
Roadside Improvement (Sta. 578+80 to Sta. 597+00)(Sta. 661+00 to Sta. 710+00)
(Sta. 409+00 to Sta. 454+50)(Contract No. 7306)

Temporary Protection and Direction of Traffic	All Required		$ 500.00
Furnishing and Placing Topsoil	1,800 cu.yd.	$ 3.00	5,400.00
A.C. Concrete Surfacing	170 sq.yd.	4.00	680.00
Furnishing and Planting Trees	120 only	12.00	1,440.00
Furnishing and Planting Shrubs	4,400 only	3.00	13,200.00
Furnishing and Planting Vines	34,000 only	0.46	15,640.00
Bark Mulch	348 unit	36.00	12,528.00
	Subtotal		$49,388.00
Flagging (60% of Contractor's Costs)	All Required		100.00
	Subtotal		$49,488.00
	10% Engr. & Cont.		4,948.00
	Total		$54,436.00

Length of Project - - - - 0.00 Miles

SUMMARY OF FUNDS

Federal Funds -	$50,200.00
State Funds -	4,236.00
Total	$54,436.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920;
Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1 - 100%

Prefix: 617-1071

STATE COPY

Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-68) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-41		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT	COUNTY
3	(PPM 21-7) 9-19-69	Josephine
		PROJECT NO. I-5-2(63)73

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

Speaker Road, Wolf Creek & Sunny Valley Interchanges

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	8-6-69	0.00
OTHER (Specify)		

FUNDS Pro rata 92.25%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 51,744	$ 47,700.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By J. K. Klaboe

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer SEP 19 1969

Oregon State Highway Division

Federal-Aid
Project No. I-5-2(63)73

SPEAKER ROAD, WOLF CREEK & SUNNY VALLEY INTERCHANGES

PACIFIC HIGHWAY IN JOSEPHINE COUNTY

Project Agreement Estimate.

Salem, Oregon, September 10, 1969

Type Code Y003
Roadside Improvement (Sta. 578+80 to Sta. 597+00)(Sta. 661+00 to Sta. 710+00)
(Sta. 409+00 to Sta. 454+50)(Contract No. 7306)

Temporary Protection and Direction of Traffic	All Required		$ 500.00
Furnishing and Placing Topsoil	1,800 cu.yd.	3.00	5,400.00
A.C. Concrete Surfacing	170 sq.yd.	4.00	680.00
Furnishing and Planting Trees	120 only	12.00	1,440.00
Furnishing and Planting Shrubs	4,400 only	3.00	13,200.00
Furnishing and Planting Vines	34,000 only	0.46	15,640.00
Bark Mulch	280 unit	36.00	10,080.00
	Subtotal		$46,940.00
Flagging (60% of Contractor's Costs)	All Required		$ 100.00
	Subtotal		$47,040.00
	10% Engr. & Cont.		4,704.00
	Total		$51,744.00

Length of Project - - - 0.00 Miles

SUMMARY OF FUNDS

Federal Funds -	$47,700.00
State Funds -	4,044.00
Total	$51,744.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1-100%
Prefix 617-1071

RECEIVED
MAY 25 1971
FOR FILING

I-5-2(63)73
7306

May 25, 1971

U. S. Fidelity & Guaranty Company
Portland Office
201 Oregon Bank Building
Portland, Oregon 97204

Gentlemen:

On May 21, 1971, we wrote to you concerning release of final payment on Contract No. 7306 awarded to All-City Landscape, Inc., for roadside improvement on Speaker Road, Wolfe Creek and Sunny Valley Interchanges on the Pacific Highway in Josephine County.

Final payment on this contract is $1,387.90 and the total contract amount is $49,763.60, including $913.70 for work performed under force account.

Very truly yours,

Floyd Cuery, Secretary
OREGON STATE HIGHWAY COMMISSION

Mr

cc All-City Landscape, Inc.
29 N. E. 148th Avenue
Portland, Oregon 97230

bc Frank Morgan
Ivan Merchant
Carroll Keasey
V. E. Skoog
Attn: John Herr

RECEIVED
MAY 21 1971
FOR FILING

I-5-2(63)73
7306

May 21, 1971

U. S. Fidelity and Guaranty Co.
521 Oregon Bank Building
Portland, Oregon 97204

Gentlemen:

Contract No. 7306 awarded to All-City Landscape, Inc., for work on the Spaker Road, Wolf Creek and Sunny Valley Interchanges Section of the Pacific Highway in Josephine County was completed January 12, 1970, and accepted by the Highway Commission on May 19, 1971.

Final payment will be released to the contractor as soon as payment processing can be completed, but not before May 26, 1971.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Oery, Secretary
OREGON STATE HIGHWAY COMMISSION

fhm

cc All-City Landscape, Inc.
89 N.E. 140th Avenue
Portland, Oregon 97230

Frank Morgan
Ivan Merchant
V. E. Skeag
Attn: John Kerr
G. T. Keaney

RECEIVED
MAY 20 1971
FOR FILING

I-5-2(63)73
7206

May 19, 1971

Oregon State Highway Commission

Gentlemen:

Work was completed January 12, 1970 on Contract No. 7206. The contract was with All-City Landscape, Inc. and was for roadside improvement on the Speaker Road, Wolf Creek and Stony Valley Interchanges Section of the Pacific Highway in Josephine County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective May 19, 1971 and that you concur in this procedure at the Commission meeting on June 22, 1971.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Query
Tom Edwards
A. E. Johnson
V. D. Wolfe
F. D. Morgan
I. D. Merchant
V. E. Skoog
L. H. Young
C. T. Keasey

VG:fw

I-5-2(63)73
376

FORM E-1 (REV. 10-00)

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Speaker Road, Wolf Creek & Sunny Valley Interchanges		WEEK ENDING: April 24, 1971
		SECTION PREFIX: 617-1071
HIGHWAY: Pacific		COUNTY: Josephine
NAME OF JOB: Speaker Rd. Wolf Cr. & Sunny Valley Interch.	KIND OF WORK: Roadside Improvement	
CONTRACTOR: All City Landscape, Inc.	CONTRACT NUMBER: 7306	FEDERAL AID PROJECT NUMBER: I-5-2(63)73
DATE OF CONTRACT: 9-2-69	DATE WORK STARTED: 10-7-69	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 3 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $53,860.80	SPECIFIED COMPLETION DATE: 12-31-69	PERCENT OF TIME ELAPSED: 98
EXCLUSIVE OF ENGINEERING: $49,156.80	ENGINEERING AUTHORIZATION: $4,704.00	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $49,766.51	ENGINEERING COST TO DATE: $5,812.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED PERCENT: OVERRUN / UNDERRUN: 1 %	PERCENT OF AUTHORIZATION: 124 %	DATE PROJECT WAS COMPLETED: 1-12-70

Post Semi-Final Submitted 4-23-71

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
			Topsoil	Trees	Shrubs	Vines	PAVING
MILES IN PROJECT							
MILES PARTIALLY COMPLETED							
MILES COMPLETED							
TOTAL ESTIMATED QUANTITIES (CONTRACT)			1,800	120	4,400	34,000	
TOTAL QUANTITIES CORRECTED TO DATE			2,304	114	4,217	32,233	
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE			2,304	114	4,217	32,233	
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT							

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Fair			
MONDAY	"			
TUESDAY	Rain			
WEDNESDAY	Partly Cloudy			
THURSDAY	Showers			
FRIDAY	Light Showers			
SATURDAY				

Routing
Moore
Decker
Jones
Buchme J
Johnsen
Peale
Swan
Glenn
Litchfield
Gallagher
Stein

RECEIVED
APR 26 1971
CONSTRUCTION DIVISION

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	Contractor had 4 man crew completing planting, worked over slide and reshaped bed at south Wolf Creek Interchange.
TUESDAY	Contractor on shaping beds and final cleanup.
WEDNESDAY	No work
THURSDAY	Contractor had supervisor and 1 man on cleanup and final shaping of sites where bark dust had been stored and fixed fence where it had been laid back for access to planting beds.
FRIDAY	No activity - job finished.
SATURDAY	

REMARKS

Contractor finished final replanting and cleanup of project this week.

Mr. Roy Olson from the Salem Office and Mr John Quiner, Region Construction Engineer, make inspection of project Tuesday of this week.

Post semi-final estimate submitted to the Region Office Friday April 23, 1971

Final Report.

SIGNED R. L. [illegible] LOCATION Grants Pass, Oregon

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

RECEIVED
MAY 1 - 1971

OREGON STATE HIGHWAY DIVISION

I-5-2(63)73

HIGHWAY BUILDING • SALEM, OREGON • 97310

7306

April 23, 1971

NOTED
A. E. JOHNSON

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, Oregon 97308

Contract 7306
Prefix 617-1071
FAP I-5-2(63)73

Dear Sir:

The replacement planting work under Contract No. 7306, Speaker Road, Wolf Creek and Sunny Valley Section of the Pacific Highway in Josephine County, was completed April 22, 1971.

We request that your office return a signed copy of this letter indicating acceptance or listing below any items or conditions which would prevent your final acceptance of the contract work.

Very truly yours,

R. L. Porter
State Highway Engineer

By F. D. Morgan
F. D. Morgan
Construction Engineer

cy to Morgan 5-4-71

Federal Highway Administration
Oregon Division Office Endorsement Date 4-29-71

NOTED
FOR CONCURRENCE

Conditions noted on above date:

Project satisfactorily completed.
Inspection made 4-27-71.

PVR:bk

R. E. Simpson
Division Engineer

RECEIVED
APR 30 1971
OFFICE OF
STATE HIGHWAY ENGINEER

VG:fw
cc R. L. Porter
F. D. Morgan

RECEIVED
JUN 2 - 1970
FOR FILES

I-5-2(63)13
7306

#2

April 28, 1970

All-City Landscape, Inc.
29 N. E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

The State Highway Commission at its meeting on April 21, 1970, granted your request for a 12-day extension of time, without assessment of liquidated damages, which will extend the specified completion date to January 12, 1970.

This action pertains to Contract No. 7306 for roadside improvement on the Speaker Road, Wolf Creek and Sunny Valley Interchanges of the Pacific Highway in Josephine County.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

fkm
cc F. D. Morgan
V. E. Skoog
C. T. Keasey
A. L. Chapman
Bureau of Public Roads

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

FOR

Extension of Time to Complete Contract

Investigation has been completed regarding the request (see reverse side) for an extension of time within which to complete the following project:

Contract No. 7306 Contractor All City Landscape, Inc.

Highway Pacific

Section N Speaker Road, Wolf Creek & Sunny Valley Interchanges

Kind of Work Roadside Improvement

It is recommended that such extension be granted as requested under the following terms and conditions:

Extend specified completion date to January 12, 1970 in recognition of ordered stop work period.

Recommended for Approval:

John Quiner
Division Engineer

John A. Bond
Construction Engineer or Bridge Engineer

R. H. Potter
State Highway Engineer

Contract No.	7306
Project designation	Fed. Aid. I-5-2(63)73 (State—Federal)
Date awarded	9-2-69
Work started	10-7-69
Per cent completed	100% 1-12-70 (Date)
Specified completion date	12-31-69
Previously extended to	
Extension requested to	1-12-70

Form E-320—3M—10-53

OREGON STATE HIGHWAY COMMISSION

Contractors Request for Extension of Time to Complete Construction Contract

Oregon State Highway Commission,
Salem, Oregon.

Date February 17, 19 70

Gentlemen:

We, the undersigned, respectfully request an extension of 12 days time, from January 1st 19 70, to January 12th, 19 70, within which to complete our Contract No. 7306, described as follows:

Roadside Improvement, Speaker Road, Wolf Creek & Sunny Valley Interchanges.

The above request is based upon the following reasons:

Temporary suspension of work from December 22nd to January 5, 1970, due to adverse weather. Ten calendar days remained in contract, - work was completed in 8 days. See attached letter.

Respectfully submitted,

All-City Landscape, Inc.
Contractor

By Clifford H Paul
Clifford H. Paul, President

CONSENT OF SURETY

Date February 24, 19 70

We, UNITED STATES FIDELITY AND GUARANTY COMPANY, as surety on the bond guaranteeing the completion of the contract above named and listed, hereby join in and consent to said request for extension of time, and hereby agree to remain fully bound as surety in all respects as if the latest extended date hereinabove stated had been stipulated in the original agreement.

John [illegible] Klump, Jr.
Attorney-in-fact

(SEAL)

Resident Agent

State Printing 70797

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: April 7, 1970

In reply refer to: 08-35-DB

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM: for G. K. Hoosner
R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-5-2(63)73
Speaker Roads, Wolf Creek and Sunny Valley Interchange

We have reviewed the request for an extension of time on the above-mentioned project.

A stop work order can be justified on the basis of adverse weather; thus, we concur in your recommendation for a 12-day time extension to January 12, 1970.

copies to
Morgan
Skoog
4-14-70

RECEIVED
APR 14 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
MAY 5 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-5-2(63)73
7306

STATE COPY

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Contingent upon modification of project agreement if additional funds are required

BY G. K. Hossner

TITLE Dist. Engineer

DATE 5-5-70

APR 17 70
U.S. BUREAU OF PUBLIC ROADS

Project Name Speaker Road, Wolf Creek & Sunny Valley Interchange

Highway Pacific

County Josephine

Contractor All City Landscape, Inc.

Address 29 Ne 148th Ave., Portland, Oregon 97230

Contract No. 7306

Prefix 617-1071

F. A. Project No. I-5-2(63)73

Order No. 3

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Repair Planting Beds on slopes damaged by small slides.

NOTE
F. B. KLABOE

Location by station numbers:

"LN" 593+00, Left, Speaker Road Interchange
"UX" 19+80, Left, Sunny Valley Interchange

Estimate of quantities and cost:

Equipment Rental	$300.00
Labor	200.00
Contractor' Percent 15% & 20%	85.00
	$585.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

These two small slides in the slopes under the structures were caused by excessive water in the material and not by the contractor's operations. No work of this type was anticipated in the original planning.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$53,860.80
Present estimate of project cost, including $585.00 for work under this order	$55,178.48
Expected ~~INCREASE~~ over-run amount	$1,317.68
Expected ~~INCREASE~~ over-run per cent	2.4%

Space to right of this line is for use of Salem Office

Submitted by: R. L. Sallaman
Resident Engineer

Approval Recommended: [illegible]
Construction Engineer or Bridge Engineer

Approval Recommended: Wesley E. Delcourt
Division Engineer

Approved: [illegible]
Deputy State Highway Engineer, Assistant State Highway Engineer or Office Engineer.
Construction

5-9-70

SP-22977-724

RECEIVED
APR 16 1970
FOR FILING

I.5-2(63)73
7306

April 15, 1970

Oregon State Highway Commission

Gentlemen:

Request for Extension of Time
No. 2
April 21, 1970 meeting

All-City Landscape, Inc., has requested a 12-day extension of time on the Speaker Head, Wolf Creek and Sunny Valley Interchange roadside improvement project on I-5 in Josephine County, Contract No. 7306. Reason for this request is to properly extend the specified completion date of December 31, 1969, in recognition of a stop work period ordered by the Engineer.

When the project was almost completed in the latter part of December, the planting beds became saturated from rainfall and it was considered advisable to delay application of the remaining bark mulch. The stop work order was therefore imposed on December 22, 1969, when there were nine days of the allotted contract time still remaining. Work was allowed to resume January 5, 1970, and was completed within seven days or on January 12.

Extension to this latter date is therefore justified and recommended. This will eliminate all liquidated damages. This was a Federal-aid Interstate project and we have the concurrence of the Bureau of Public Roads.

This matter will be on the agenda for your consideration at the April 21 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
V. D. Wolfe
F. D. Morgan
V. E. Skoog
C. T. Keasey

JAB:fw sr

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

FOR

Extension of Time to Complete Contract

Investigation has been completed regarding the request (see reverse side) for an extension of time within which to complete the following project:

Contract No. 7306 Contractor All City Landscape, Inc.

Highway Pacific

Section E Speaker Road, Wolf Creek & Sunny Valley Interchanges

Kind of Work Roadside Improvement

It is recommended that such extension be granted as requested under the following terms and conditions:

Extend specified completion date to January 12, 1970 in recognition of ordered stop work period.

Recommended for Approval:

John Quinn
Division Engineer

Phil Cook
Construction Engineer or Bridge Engineer

L. W. Lee
State Highway Engineer

Contract No. 7306

Project designation Fed. Aid. I-5-2(63)73
State—Federal

Date awarded 9-2-69

Work started 10-7-69

Per cent completed 100% 1-12-70
Date

Specified completion date 12-31-69

Previously extended to

Extension requested to 1-12-70

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

FOR

Extension of Time to Complete Contract

Investigation has been completed regarding the request (see reverse side) for an extension of time within which to complete the following project:

Contract No. 7306 Contractor All City Landscape, Inc.

Highway Pacific

Section N Speeder Road, Wolf Creek & Sunny Valley Interchanges

Kind of Work Roadside Improvement

It is recommended that such extension be granted as requested under the following terms and conditions:

Extend specified completion date to January 12, 1970 in recognition of ordered stop work period.

Recommended for Approval:

John Cawood Jr
Division Engineer

Construction Engineer or Bridge Engineer

State Highway Engineer

Contract No.	7306
Project designation	Fed. Aid. I-5-2(63)73 (State—Federal)
Date awarded	9-2-69
Work started	10-7-69
Per cent completed	100% 1-12-70 (Date)
Specified completion date	12-31-69
Previously extended to	
Extension requested to	1-12-70

Form E-320 3M--10-53

OREGON STATE HIGHWAY COMMISSION

Contractors Request for Extension of Time to Complete Construction Contract

Oregon State Highway Commission,
Salem, Oregon.

Date February 17, 19 70

Gentlemen:

We, the undersigned, respectfully request an extension of 42 days time, from January 1st 19 70, to January 12th, 19 70, within which to complete our Contract No. 7306, described as follows:

Roadside Improvement, Spaulen Road, Wolf Creek & Savey Valley Interchanges

The above request is based upon the following reasons:

Temporary suspension of work from December 23rd to January 5, 1970, due to adverse weather. Ten calendar days remained in contract, - work was completed in 8 days. See attached letter.

Respectfully submitted,

All-City Landscape, Inc.
Contractor

By Clifford H. Paul
Clifford H. Paul, President

CONSENT OF SURETY

Date February 24, 19 70

We, UNITED STATES FIDELITY AND GUARANTY COMPANY, as surety on the bond guaranteeing the completion of the contract above named and listed, hereby join in and consent to said request for extension of time, and hereby agree to remain fully bound as surety in all respects as if the latest extended date hereinabove stated had been stipulated in the original agreement.

J. Robert Schmidt, Jr.
Attorney-in-fact

(SEAL)

Resident Agent

State Printing 70797

FORM E-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
March 31, 1970

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

SUBJECT: Speaker Road, Wolf Creek and Sunny Valley Interchanges
Contract No. 7306
Extension of Time

The subject roadside improvement contract had a specified date for completion of December 31, 1969. The work areas became so saturated with moisture in late December that it was considered advisable to delay completion of the bark mulching. Therefore, a stop work order was in effect for 15 days from December 22, 1969 to January 5, 1970. The project was then completed within 7 days or on January 12, 1970. We must formally extend this specified completion date accordingly and extension to January 12, 1970 is recommended. This was an Interstate project. Rough draft letters to the Bureau of Public Roads and the Highway Commission are attached.

As we interpret the new 1970 Standard Specifications, formal extension of time in this situation will not be required. Under Section 108.08(b) (Page 81), ordered stop work periods are excluded from the lapse of contract time irrespective of the way in which it is expressed. This is new wording which we believe will eliminate the need for these routine housekeeping types of time extensions.

F. D. Morgan
Construction Engineer

By John A. Bond
John A. Bond
Construction Administration Engineer

JAB:fw
Attach.
cc V. L. Gallagher

RECEIVED
APR 2 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 3 - 1970
FOR FILING

I-5-2(63)73

7306

April 3, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Post Office Box 300
Salem, Oregon 97308

Dear Sir:

Re: Speaker Road, Wolf Creek and Sunny Valley Interchange, Contract No. 7306
Project No. I-5-2(63)73

The contractor on this project has requested a 12-day extension of time because of a stop work order. The time control on this project was by a specified calendar date of December 31, 1969.

Because of saturated planting areas from winter rainfall, it was considered advisable to delay completion of the bark mulching so the engineer ordered a stop work from December 22, 1969, to January 5, 1970. At the time of the stop work order, there were 9 days of the alotted contract time remaining. The contractor then completed the project on January 12 or 7 days after he was allowed to resume work.

The requested extension is therefore justified and we request your concurrence.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
V. E. Skoog
F. D. Morgan
C. T. Keasey

JAB:fw srb

RECEIVED
JAN 30 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-5-2(63)73
730

OFFICE COPY

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

APPROVED EFFECTIVE DATE 12/23/69
Contingent upon modification of project agreement if additional funds are required.
BY Glenn K. Hosmer
TITLE Dist. Engineer 5 JAN 1970

U. S. BUREAU OF PUBLIC ROADS

Project Name Speaker Road, Wolf Creek & Sunny Valley Interchange Date DATE10-12-69, 19

Highway Pacific

County Josephine

Contractor All-City Landscape, Inc.

Address 29 NE 148th Avenue, Portland, Oregon 97230

Contract No. 1709

Prefix 617-1071

F. A. Project No. I-5-2(63)73

Order No. 2

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Extend and adjust existing drains from the structure catch inlets to carry the water past the planting beds and into the ditches.

Location by station numbers:

At the interchange structures at Speaker Road, North Wolf Creek, South Wolf Creek and Sunny Valley.

Estimate of quantities and cost:

NOTE
F. B. KLAUS

Extend Bridge Drains:

Laterials	$120.00
Equipment Rental	50.00
Labor	140.00
Contractor's Percentage 15% & 20%	53.50
	$363.50

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

The existing drains from the catch inlets on the structures now empty in the new planting beds. These pipes should be extended and/or adjusted to prevent drains becoming plugged and to protect the planting beds from erosion.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$ 53,860.80
Present estimate of project cost, including $ 363.50 for work under this order	$ 53,860.80
Expected under-run / over-run amount	$ - -
Expected under-run / over-run per cent	- -

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Construction Engineer or Design Engineer

Approval Recommended: John Quiner II Ass't. Division Engineer

Approved: [signature] Deputy State Highway Engineer or Assistant State Highway Engineer or Office Engineer. 1-6-70

81"22877-724

RECEIVED
SEP 8 - 1969
FOR FILING

I-5-2(63)73
7316

September 8, 1969

All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

Enclosed are three copies of Contract No. 7316 for $46,940 awarded to you by the State Highway Commission on September 2, 1969. This contract is for roadside improvement on the Speaker Road, Wolf Creek and Sunny Valley Interchanges on the Pacific Highway in Josephine County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The completion date on this contract is December 31, 1969.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Gelbel (SALF)
C. T. Keasey
A. L. Chapman
Roy Olson

RECEIVED
AUG 11 1969
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

8-6-69

FOR FILING

LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT: I-5-2(63)73

SECTION: SPEAKER ROAD, WOLF CREEK & SUNNY VALLEY INTERCHANGES

TO: I-5-2(63)73
MR. FOREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

Mkr

7306

WORK : ROADSIDE IMPROVEMENT

COUNTY : JOSEPHINE

FROM:	DATE PS&E APPROVED	DATE AUTHORIZED
R. E. SIMPSON, DIVISION ENGINEER SALEM, OREGON	AUGUST 6, 1969	AUGUST 6, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- (X) CONSTRUCTION — ADVERTISE FOR BIDS.
- ( ) RIGHT OF WAY.
- (X) OTHER (SPECIFY). AFTER AWARD CONCURRENCE YOU ARE AUTHORIZED TO PROCEED WITH CONTRACTOR'S FLAGGING IN AMOUNT OF $100.00 AS SHOWN IN YOUR ESTIMATE.
- ( ) UTILITY ADJUSTMENT.
- ( ) RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. YOUNG'S AUGUST 5, 1969 REQUEST AND CERTIFYING STATEMENTS ARE ACCEPTED.

PS&E DOCUMENTS FOR THE SUBJECT PROJECT HAVE BEEN REVIEWED AND ARE HEREBY APPROVED.

A SIGNED COPY OF THE TITLE SHEET IS RETURNED HEREWITH.

NOT E. E.

8-8-69

OFFICE USE

Young
Wlen.

RECEIVED
AUG 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
8-6-69	R. E. SIMPSON	DIVISION ENGINEER

RECEIVED
JUL 31 1969
FOR FILING

I-5-2(63)73
7306

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 30, 1969

SUBJECT: Utility Status Report for August 28, 1969 Letting

To: Mr. L. H. Young
Program & Planning Engineer
BUILDING

The status of negotiations with utilities on FAI projects for this letting are as follows:

1. N. & S. CANYONVILLE INTERCHANGE AND W. FORK INTERCHANGE

Project No. I-5-2 (62) 97 Roadside Improvement

No utilities involved.

2. SPEAKER RD., WOLF CR. AND SUNNY VALLEY INTERCHANGES

Project No. I-5-2 (63) 73 Roadside Improvement

No utilities involved.

I certify that to the best of my knowledge the above statements are correct in regard to utility negotiations for the projects scheduled for contract on August 28, 1969.

F. D. Morgan
Construction Engineer

By: T. W. Litchfield

T. W. Litchfield
Utilities Liaison Engineer

JMC:ss

cc: F. B. Klaboe
D. J. Barbee
V. E. Skoog
D. H. Moehring
C. G. Swenson
L. H. Young (3)

RECEIVED
JUL 30 1969
OFFICE OF
STATE HIGHWAY ENGINEER

TRANSACTION NOS. 7-54 AND 7-55

FORM PR-48
REV. 7-67

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: OREGON

DATE: 7-25-69

BY (Signature): MR. YOUNG'S JULY 15, 1969 LETTER

TITLE:

CLASS OF FEDERAL FUNDS: ☒ FAI ☐ FAP ☐ FAU ☐ FAS ☐ OTHERS

STAGE 1 *
ITEM NOS. _____ THRU _____

STAGE 2
ITEM NOS. 588 THRU 589

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS
588	I-5-2(62)97	0.0	95,000	87,400
589	I-5-2(63)73	0.0	100,000	92,000

OTHER IDENTIFICATION AND/OR REMARKS (State)

LOCATION	WORK
NORTH & SOUTH CANYONVILLE AND WEST FORK INTERCHANGES	LANDSCAPING
SPEAKER ROAD; WOLF CREEK AND SUNNY VALLEY INTERCHANGES	LANDSCAPING

Young 7-31-69

REMARKS (Division)

RECEIVED
JUL 31 1969
FHWA

I-5-2(63)73
7306

RECEIVED
JUL 28 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE
		JULY 25, 1969	FOR DIVISION ENGINEER

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-954

RECEIVED
JUL 30 1969
GAME
COMMISSION

OFFICE OF THE DIRECTOR

P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

I-5-2(63)73
7306

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
J. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

July 18, 1969

cc's sent 7-22-69

F.B. Klaboe
L.H. Young
F.E. Terpin (5)
T.C. Roake (5)
C.G. Swenson
W.H. Tebeau
A.E. Johnson (2)
C.T. Keasey (4)
H.S. Coulter (4)

State Highway Engineer
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

This is in reply to your letter of July 7, 1969, which included plans for five projects.

A review of these projects indicate that there will be no conflict with wildlife resources.

The following projects are approved:

1. East Fremont Interchange Section Stadium Freeway, Multnomah County

2. North and South Canyonville and West Fork Interchanges Pacific Highway, Douglas County

3. Speaker Road, Wolf Creek and Sunny Valley Interchanges Pacific Highway, Josephine County

4. N.W. 4th Avenue-Arcata Way Section FAS 23-103, Malheur County

5. Barth Crossing-U.S. 30 Connection Section FAS 470, Umatilla County.

We appreciate the opportunity to comment on these projects.

Very truly yours,

R. O. Koski

R. O. Koski
Chief of Liberations

RECEIVED
JUL 23 1969
OFFICE OF
STATE HIGHWAY ENGINEER

ROK:js

cc: Dir. OFC

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO B.O.

FORM PR-1 (REV. 4-61)

FEDERAL-AID
(PR

CARD 2	REPORT NUMBER (18)–(20)	1	PROJECT LOCATION (45 typewriter spaces) 21–65	I-5 1.1, 3.2 & 7.8 mi. S. of Douglas Co. Line	ADT	PRESENT (66)–(69)	6,100	FUTURE (70)–(73)	13,600	YE			
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28–62	Landscaping	NATL. FOREST (63)–(65)		FH ROUTE NO. (66)–(68)		SUPV AGCY (69)		DA CLASSIF. (70)		DA AREA (71)		EMERG. YR. (72)–(73)	PL. A (74)
CARD 4	CLASS OF FEDERAL FUNDS	Interstate									COUNTY NAME	Jos		
	NAME OF URBAN AREA 17–31										ROUTE NO. I	FEDERAL		

CARD 5	LINE NO. (14–15)	CHANGE CODE (16)	PROJECT CODE 41	WORK CLASS 42	WORK TYPE 43–46	STEP 53	TERMINI (Full description) (54)–(58)	MILES (59)–(66)	ESTIMATED PROJEC TOTAL ESTIMATED COST (67)	FEDERAL FUNDS
5					PE		I-5 1.1, 3.2 & 7.8 mi. S. of Douglas Co. line.			
5					ROW		(Speaker Rd., Wolf Creek & Sunny Valley Interchange)			
5					CONST (CODE)			0.0	100,000	92,000
								0.0	100,000	92,000

CARD 1	CODE 1	PREPARED BY	PROJECT TOTALS
1	14	PROGRAM APPROVAL DATES	(16)–(23) (24)

7306

Budget Bureau No. 41-R2067; Approval Expires February 28, 1

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
s (65)	ADT	6,100	13,600 (66)	89 (70)(71)(72)	08	Oregon	35 (2)(3)	042 (4)(5)(14)	589

SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	I Projects Only POST MI.	DESIG.
(68)	(70)	(71)	(72)(73)	(74)(75)	I- (14 23)	5-2(63) (7 13)		73 (24)(26)	

COUNTY NAME: Josephine — CODE: 033 (12)(13)(14)

PROGRAM STAGE: [ ] 1 OR [X] 2

ROUTE NO. I — FEDERAL-AID: I-5 (32) — STATE (36)(37) — U.S.: I-5 (41)

ESTIMATED PROJECT COST BY PHASES

MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK *(Full description)*
(54)(58)	(59) (66)	(67) (76)			
					Landscaping consisting of top-soiling, planting trees, shrubs and vines and paving of drainage ditche
0.0	100,000	92,000	8,000		ROW - 250' min.; access control- fu parking restrictio complete.
0.0	100,000	92,000	8,000		
(16)	(23)	(24) (33)			

REMARKS

Additional data: Items 370, 379 & 405; Projects I-5-2(37)72, I-5-2(42)76, and I-5-2(48)72.

(over)

USCOMM DUSCOMM-DC 48908

Remarks continued:

Information for PR 37-B: RW-1, ROW-F, Sanitary Facilities-N.

The project consists of landscaping the Speaker Road, Wolf Creek and Sunny Valley Interchanges.

Public hearings not required under the provisions of paragraph 6c of PPM 20-8.

This project is considered stage construction of this section of I-5 and design approval other than P.S. & E. approval to advertise is considered to have been given under Projects I-5-2(37), I-5-2(42) and I-5-2(48).

RECEIVED
MAR 13 1969
STATE GOVERNMENT

Memorandum

I-5-2(63)73

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7306

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: March 13, 1969

In reply refer to: 08-35-EC/400.1

copy 'No Hearing' file

SUBJECT: Public Hearing Requirements

We concur that hearings are not required for the following projects under the provisions of paragraph 6c of PPM 20-8:

I-80N-2(42)39, Multnomah County Line-East Cascade Locks Section
Columbia River Highway, Hood River County
Work: Pavement Seal

I-5-3( )145, Cabin Creek Safety Rest Area
Pacific Highway, Douglas County
Work: Water System (Installation of)

I-80N-6( )252, Hilgard-Perry Section
Old Oregon Trail Highway, Union County
Work: Fencing (along Scenic Strip)

I-5-2( )69, N. & S. Canyonville Interchanges & W. Fork Interchange
Pacific Highway, Douglas County
Work: Roadside Improvement

I-5-2( )72, Speaker Road, Wolf Creek & Sunny Valley Interchanges
Pacific Highway, Josephine County
Work: Roadside Improvement

I-5-4( )235, Dever Road-N. Albany Interchange Section
Pacific Highway, Linn County
Work: Roadside Improvement

3-17-69
RETURNED TO
Young
By Asst. State Hwy. Engr.

NOTED
F. B. KLABOE

RECEIVED
MAR 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

18-3312 Collier Memorial State Park, The Dalles-Calif. Hwy., N. of Klamath Falls 1969

#7307

RECEIVED
MAY 27 1970
FOR FILING

18-3312

7307

May 27, 1970

U.S. Fidelity & Guaranty Co.
Portland Office
201 Oregon Bank Bldg.
Portland, Oregon 97204

Gentlemen:

Contract No. 7307 awarded to All-City Landscape, Inc., for a toilet building in Collier Memorial State Park in Klamath County was completed on April 22, 1970, and accepted by the Highway Commission on May 22, 1970.

Final payment in the amount of $1,333.10 will be released to the contractor after June 3, 1970. The total contract amount is $27,745.42 and no work was performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

aj

cc All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

bc Frank Morgan
Ivan Merchant
V. E. Skoog
Attn: John Herr
J. F. Putnam

RECEIVED
MAY 25 1970
FOR ...

18-3312

7307

May 22, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed April 22, 1970, on Contract No. 7307. The contract was with All-City Landscape, Inc., and was for rest-room facilities on the Collier Memorial State Park Section in Klamath County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective May 22, 1970, and that you concur in this procedure at the Commission meeting on June 2.

It is assumed that if you have no objections to this action and you do not advise us to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
Lloyd P. Shaw
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
F. D. Morgan
Ivan Marchant
L. H. Young
J. F. Putnam

srb sr

18-3312
7307

FORM D-1 (REV 12-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Collier State Park		WEEK ENDING: May 9, 1970
		SECTION PREFIX: 18-3312
HIGHWAY: The Dalles-California		COUNTY: Klamath
NAME OF JOB: Collier State Park Toilet Bldg.	KIND OF WORK: Toilet Building & Sewage System	
CONTRACTOR: All-City Landscape, Inc.	CONTRACT NUMBER: 7307	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: September 2, 1969	DATE WORK STARTED: September 23, 1969	ESTIMATED COMPLETION DATE: [illegible]
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
	SPECIFIED COMPLETION DATE: May 1, 1970	PERCENT OF TIME ELAPSED: 96
PROJECT AUTHORIZATION: $ 30,527.99	ENGINEERING AUTHORIZATION: $ 2,666.20	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $ 27,861.79	ENGINEERING COST TO DATE: $ 2,633.36	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ [illegible]	PERCENT OF AUTHORIZATION: 100 %	DATE PROJECT WAS COMPLETED: April 22, 1970
ESTIMATED PERCENT: [illegible] UNDERRUN . . . . . 0.4 %		

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	[illegible] 5000 gal.	[illegible] 4" Effl. line	Size 1300 Disp. Field	
			Toilet Bldg. [illegible]	Septic Tank [illegible]	[illegible]	[illegible]	PAVING
MILES IN PROJECT				(P. A. No. 1)			
MILES PARTIALLY COMPLETED							
MILES COMPLETED							
TOTAL ESTIMATED QUANTITIES (CONTRACT)			100 %		200 L. F.	100 %	
TOTAL QUANTITIES CORRECTED TO DATE			100 %	100 %	120 L. F.	100 %	
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE			100 %	100 %	120 L. F.	100 %	
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT							

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Clear-Mild with showers late PM			
MONDAY	Clear-Warm			
TUESDAY	Cloudy-Mild			
WEDNESDAY	Partly Cloudy-Windy			
THURSDAY	Cloudy-Mild			
FRIDAY	Overcast-Showers			
SATURDAY	Overcast-Mild			

Roofing
Marq
Docker
Walker
Johnson
Peace
Swan
Glenn
Litchfield
Gallagher
Stein

RECEIVED
MAY 11 1970
CONSTRUCTION
DIVISION

NOTED
R. D. CHURCH

BEN GIFFORD

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY	Job completed
MONDAY	Worked on Semi-Final part of day
TUESDAY	
WEDNESDAY	Same as Monday
THURSDAY	Finished Semi-Final and submitted to Division Office today.
FRIDAY	
SATURDAY	

REMARKS

THIS WILL BE THE LAST WEEKLY REPORT FOR THIS PROJECT.

cc: Bridge (2)
Const. (1)
Div. (1)
File (1)

SIGNED W. A. Kubiel LOCATION Lakeview Falls

PRIME RESIDENT SUBMIT 5 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 5 COPIES.

BP-7216

RECEIVED
OCT 2 - 1969
FORM E-80-X (12-67)
FOR FILING.

18-3312

7307

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

September 25, 1969

To: Mr. J. F. Putnam
Division IV Engineer
P. O. Box 1249
Bend, OR 97701

SUBJECT: Peter Skene Ogden State Park
Contract No. 7305
Collier Memorial State Park
Contract No. 7307
Goose Lake State Recreation Area
Contract No. 7308

We request the septic tanks on subject contracts be changed to one 5,000-gallon tank.

Please proceed with price agreements for this work.

Warren H. Gaskill, Assistant
State Parks Superintendent

WHG:al

cc: R. H. Clark
P. O. Box 1249
Bend, OR 97701

N. D. Krehbiel
Resident Bridge Engineer
2557 Altamount Dr.
Klamath Falls, OR 97601

NOTED
LLOYD P. SHAW

RECEIVED
SEP 8 - 1969
FOR FILING

18-3312
7307

September 8, 1969

All-City Landscape, Inc.
29 N.E. 148th Avenue
Portland, Oregon 97230

Gentlemen:

Enclosed are three copies of Contract No. 7307 for $26,662 awarded to you by the State Highway Commission on September 2, 1969. This contract is for a toilet building in the Collier Memorial State Park in Klamath County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The completion date on this contract is May 1, 1970.

Very truly yours,

Floyd Cuery, Secretary
OREGON STATE HIGHWAY COMMISSION

aj
Enclosures

bc F. D. Morgan
D. J. Barbee
I. D. Merchant
William Geibel (CAIF)
J. F. Putnam
N. D. Krehbiel
David Talbot

19-3311 Goose Lake State Recreation Area, S. of Lakeview 1969

#7308

APR 29 1970

ING

19-3311
7308

April 29, 1970

United Pacific Insurance Company
Fidelity & Surety Department
P. O. Box 1216
Tacoma, Washington 98401

Gentlemen:

Contract No. 7308 awarded to Aichele Landscaping, Inc., for a toilet building in the Goose Lake Recreation Area in Lake County was completed on February 25, 1970, and accepted by the Highway Commission on April 28, 1970.

Final payment in the amount of $1,391.45 will be released to the contractor after May 6, 1970. The total contract amount is $27,639.00 and no work was performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

er

cc: Aichele Landscaping, Inc.
F. G. Sauer Co.
Frank Morgan
Ivan Marchant
V. E. Skoog
Attn: John Herr
J. F. Putnam

RECEIVED
APR 28 1970
FOR FILE

19-3311
7308

April 28, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed February 25, 1970, on Contract No. 7308. The contract was with Aichele Landscaping, Inc., and was for rest room facilities on the Goose Lake State Recreational Area 14 miles south of Lakeview in Lake County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective April 28, 1970, and that you concur in this procedure at the Commission meeting on June 2.

It is assumed that if you have no objections to this action and you do not advise me to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
Victor D. Wolfe
V. E. Skoog
Ivan Merchant
F. D. Morgan
L. H. Young
J. F. Putnam

19-3311
7308

FORM E-1 (REV 10-66)

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: Goose Lake State Recreation Area		WEEK ENDING: April 4, 1970
		SECTION PREFIX: 19-3311-900
HIGHWAY:		COUNTY: Lake
NAME OF JOB: Goose Lake State Recreation Area	KIND OF WORK: Toilet Building	
CONTRACTOR: Michele Landscaping, Inc.	CONTRACT NUMBER: 7308	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: September 2, 1969	DATE WORK STARTED: October 14, 1969	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: — SUPERVISION: —	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
	SPECIFIED COMPLETION DATE: May 1, 1970	PERCENT OF TIME ELAPSED: 73 to compl. date
PROJECT AUTHORIZATION: $ 29,958.92	ENGINEERING AUTHORIZATION $ 2,616.50	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $ 27,342.42		
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 27,639.00	ENGINEERING COST TO DATE $ 2,540.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED PERCENT: OVERRUN / UNDERRUN 1.1%	PERCENT OF AUTHORIZATION 97 %	DATE PROJECT WAS COMPLETED: February 25, 1970

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	[illegible] 5000 Gal.	[illegible] 4 " Effl.	Size 2100 Disp. Field	8" Metal Conduit
			Toilet Bldg. [illegible]	Septic Tank [illegible]	[illegible]	[illegible]	[illegible]
MILES IN PROJECT				(P.A. #1)			
MILES PARTIALLY COMPLETED							
MILES COMPLETED							
TOTAL ESTIMATED QUANTITIES (CONTRACT)			100 %		180 L.F.	100 %	18 L.F.
TOTAL QUANTITIES CORRECTED TO DATE			100 %	100 %	128 L.F.	100 %	18 L.F.
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE			100 %	100 %	128 L.F.	100 %	18 L.F.
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT							

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Partly Cloudy-Windy-Cool			
MONDAY	Mostly Cloudy-Windy-Cool			
TUESDAY	Partly Cloudy-Windy-Cool			
WEDNESDAY	Partly Cloudy-Mild			
THURSDAY	Clear-Mild-Wind PM			
FRIDAY	Clear-Mild			
SATURDAY	Clear-Mild			

RECEIVED
APR 6 1970
CONSTRUCTION DIVISION

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	No work on project.
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	SEMI-FINAL ESTIMATE SUBMITTED TO DIVISION OFFICE.
FRIDAY	
SATURDAY	

REMARKS

Office personnel worked on semi-final estimate which was submitted to Division office on Thursday.

This will be the last weekly report for this project.

cc: Const.
Bridge
Div.
File

W. Kuckuck

SIGNED [illegible] LOCATION Idaho Falls

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

BP-F218

RECEIVED
OCT 2 - 1969
FOR FILING

19-3311

7308

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

September 25, 1969

To: Mr. J. F. Putnam
Division IV Engineer
P. O. Box 1249
Bend, OR 97701

SUBJECT: Peter Skene Ogden State Park
Contract No. 7305
Collier Memorial State Park
Contract No. 7307
Goose Lake State Recreation Area
Contract No. 7308

We request the septic tanks on subject contracts be changed to one 5,000-gallon tank.

Please proceed with price agreements for this work.

Warren H. Gaskill, Assistant
State Parks Superintendent

WHG:al

cc: R. H. Clark
P. O. Box 1249
Bend, OR 97701

H. D. Krehbiel
Resident Bridge Engineer
2557 Altamount Dr.
Klamath Falls, OR 97601

NOTED
LLOYD P. SHAW

RECEIVED
SEP 8 - 1969
FOR FILING

19-3311

7308

September 9, 1969

Aichele Landscaping, Inc.
11360 S.E. Stevens Road
Portland, Oregon 97266

Gentlemen:

Enclosed are three copies of Contract No. 7308 for $26,165 awarded to you by the State Highway Commission on September 2, 1969. This contract is for a toilet building in the Goose Lake Recreation Area in Lake County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The completion date on this contract is May 1, 1970.

Very truly yours,

Floyd Quary, Secretary
OREGON STATE HIGHWAY COMMISSION

cr
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Geibel (SAIF)
J. F. Putnam
M. D. Krehbiel
David Talbot

SU-23-103(1) N.W. 4th Ave.-Arcata Way 1969
Sec., of FAS-23-103 at W. city limits
#7309 of Ontario. (Irrigation system)

C3

OREGON STATE HIGHWAY DEPARTMENT

FORM A-150 (3-64)

HIGHWAY DEPARTMENT INVOICE

NO. 105557

DATE	BILLING REQ. NO.	YOUR ORDER NO.	CREDIT DISTRIBUTION
4-16-71	CC 1252		520-1070-297 7309

RECEIVED
COUNTY & CITY SECTION
APR 16 1971
ENGR. COOR. OE RE UE
UPE OE RE RPE

- Malheur County
- Courthouse
- Vale, Oregon 97918

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DEPARTMENT

SEND REMITTANCE TO:
OREGON STATE HIGHWAY DEPARTMENT
STATE HIGHWAY BUILDING
SALEM, OREGON 97310

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Attention: Honorable Willis A. White			
Final Billing: S.W. 4th Avenue-Arcata Way Section of Verde Drive, FAS 23-103 (Irrigation Facilities). Covered by agreement dated April 25, 1967.			
County advance deposit		23,000.00	
Amount previously transferred		17,000.00	
			6,000.00
County share on construction		19,537.22	
Amount previously transferred		17,000.00	
			2,537.22
To be refunded			3,462.78
By			

ACKNOWLEDGMENT OF BILLING REQUEST

RECEIVED
JUN 8 - 1970
FOR FILING

SLI-23-103(1)
7309

June 8, 1970

United Pacific Insurance Company
P. O. Box 3156
Tacoma, Washington 98401

Gentlemen:

Contract No. 7309 awarded to Caley Construction Company, Inc., for an irrigation system on N. W. 4th Avenue-Arcadia Way of FAS 23-103 in Malheur County was completed on May 11, 1970, and accepted by the Highway Commission on June 5, 1970.

Final payment in the amount of $4,137.60 will be released to the contractor after June 15, 1970. The total contract amount is $98,337.95 including $2,483.95 for work performed under force account.

No claims for labor or material have been filed with us.

Very truly yours,

Floyd Henry, Secretary
OREGON STATE HIGHWAY COMMISSION

Encl.

cc Caley Construction Co., Inc.
Box 4354
Boise, Idaho 83705

Frank Morgan
Ivan Merchant
V. E. Skeen
Attn: John Kerr
H. S. Coulter

RECEIVED
JUN 8 - 1970
FOR FILING

SU-23-103(1)
7309

June 5, 1970

Oregon State Highway Commission

Gentlemen:

Work was completed May 11, 1970, on Contract No. 7309. The contract was with Galey Construction Company, Inc., and was for an irrigation system on the N. W. 4th Avenue-Arcada Way Section of FAS 23-103 in Malheur County.

As the contractor has completed all work according to specifications, I recommend that you accept the project effective June 5, 1970, and that you concur in this procedure at the Commission meeting on July 7.

It is assumed that if you have no objections to this action and you do not advise us to the contrary, I may consider the matter has your approval.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
F. B. Klaboe
V. D. Wolfe
V. E. Skoog
Ivan Marchant
F. D. Morgan
L. H. Young
H. S. Coulter

srb :rr

SU-23-103(1)

FORM E-1 (REV. 10-68) 7309

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: N.W. 4th. Ave.-Arcata Way		WEEK ENDING: May 16, 1970
		SECTION PREFIX: 523-1020
HIGHWAY: F.A.S. 23-103		COUNTY: Malheur
NAME OF JOB: N. W. 4th. Ave.-Arcata Way	KIND OF WORK: Irrigation System	
CONTRACTOR: Galey Construction Company Inc.	CONTRACT NUMBER: 7309	FEDERAL AID PROJECT NUMBER: SU 23-103(1)
DATE OF CONTRACT: September 19, 1969	DATE WORK STARTED: October 14, 1969	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 1 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 75	CALENDAR DAYS USED 71
PROJECT AUTHORIZATION: $ 115,154.83	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED 94.7%
EXCLUSIVE OF ENGINEERING: $ 106,023.51	ENGINEERING AUTHORIZATION $ 9,131.22	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST 100%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 93,073	ENGINEERING COST TO DATE $ 5,231	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION 100%
ESTIMATED PERCENT: ~~EXCESS~~ UNDERRUN 12.2 %	PERCENT OF AUTHORIZATION 57.3 %	DATE PROJECT WAS COMPLETED: May 11, 1970

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

		WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	10	Overcast	0		
MONDAY	11	Pt. Cloudy	1		
TUESDAY	12	Pt. Cloudy	0		
WEDNESDAY	13	Pt. Cloudy	0		
THURSDAY	14	Pt. Cloudy	0		
FRIDAY	15	Fair	0		
SATURDAY	16		0		

RECEIVED
MAY 18 1970
CONSTRUCTION
DIVISION

BEN GIFFORD

NOTED
R. D. CHURCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY 10	No Activity
MONDAY 11	Contractor installed motor at pump station.
TUESDAY 12	No Activity
WEDNESDAY 13	No Activity
THURSDAY 14	No Activity
FRIDAY 15	No Activity
SATURDAY 16	No Activity

REMARKS

This will be the Final report. Pump was installed on Monday of this week and project has been completed.

W. A. Tison for

SIGNED E. S. Thompson, Resident Engineer LOCATION Ontario

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

FAS 23-103

NOTED | | ADE | ADE | DDE

FORM S-00 MAR 3-63 SP*6470-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

OCT 17 1969

REC'D DIV. OFFICE LA GRANDE

Ontario, Oregon
October 14, 1969

NOTED
A. SHIRLEY

To: Memo to Files

SUBJECT: N. W. 4th Ave.-Arcata Way FAS 23-103
Ontario, Oregon
Contract No. 7309

Bob-Hal

NOTED
C. O. FREDRICKSON

A preconstruction conference was held in the resident engineer's office on October 8, 1969. The following people were present:

Frank Galey, Jr.	President, Galey Construction Co., Inc.
John Eskelin	Engineer and EEO Officer, Galey Construction Co., Inc.
Ken Berry	Superintendent, Galey Construction Co., Inc.
Adam Focht	Irrigation Manager, North Board of Control
Alvin Baker	Engineer, North Board of Control
Loyd Castner	City Manager, City of Ontario
Albert Gaschler	City Engineer, City of Ontario
Tom Smith	Property Owner
Alfred Shirley, Jr.	Oregon State Highway Dept.
H. M. Fillmore	Oregon State Highway Dept.
W. A. Tison	Oregon State Highway Dept.
R. P. Singer	Oregon State Highway Dept.

Mr. Frank Galey, Jr. of Galey Construction Co., Inc. advised that work would commence within two or three days after ditch water has been turned out. The North Board of Control stated that the water would be turned out about the 15th of October.

The contractor listed the suppliers of the materials as follows:

Concrete	Ready To Pour, Ontario
Steel	Allen Steel, Boise
Pipe	Idaho Pipe, Nampa
Manhole frames and covers	Undetermined

Certification of materials was discussed. The contractor was advised to follow the Supplemental Standard Specifications, Article 6 & 7 and the Special Provisions, Section 405, page 6 & 7 which pertains to

NOTED
HAROLD REYNOLDSON

RECEIVED
NOV 3 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
P. B. Arensmeier

city requests overlay project for Mar. '70

NOTED
DON HARWELL

reinforcement steel. It was also brought to his attention that we must have a means of identifying the concrete pipe. Each section of pipe should be marked as to class, manufacturer, and date of manfacture. Concrete should be certified by the supplier as being class "A" 3300 PSI concrete.

The contractor was not sure but thought that the installations of pipe would be tested for watertightness by means of hydrostatic pressure tests.

The contractor was advised that the construction of the pumping station at station 36+25 had been changed. The pumping station will be constructed at N. W. 4th Ave., station 26+10±. This will eliminate the ten foot lined ditch and since this was a lump sum item a price agreement would be formulated reducing the cost of this item.

The contractor stated that the company was a union member. Their Equal Employment Officer was Mr. John Eskelin and that the EEO would be represented on the job by the job superintendent, Mr. Kem Berry. They were advised that we would request the date and time of any meeting on EEO policy in order that the State can be represented. It was brought to the contractors attention that notices and posters setting forth the companies EEO policy should be posted in areas readily accessible to employees or potential employees. Also that a copy of the predetermined wage scale be posted. The contractor indicated that they had been advised that three copies of a Monthly Federal-Aid Highway Construction Contractor's Equal Employment Opportunity Report must be submitted for the first three months and thereafter each month the company has ten or more employees working on the project.

The contractor was not sure but did not think any work would be subcontracted. They were advised that if any work was subcontracted five copies of a subcontract should be submitted and that each copy should include a copy of form PR-1273, Required Contract Provisions All Federal-Aid Construction Contracts, a copy of Predetermined Wage Scale and a copy of Federal-Aid Contracts Equal Employment Opportunity.

Payrolls were also discussed at this meeting. It was stressed that particular attention be devoted to Section 5, Statement and Payrolls, page 3 of form PR 1273. The contractor was advised that the first payroll must show each employees first name, initial and last name, social security number and address. Also that first, last and any payroll after a wage change must be accompanied by a Public Works Contractors Wage Certification, form 124 RE-1. All payrolls must be accompanied by a statement of compliance.

During discussion of prosecution and progress of work the contractor was advised that of this date 26.7% of the contract time has been used. They felt this work could be completed in approximately three weeks. Contractor questioned material to be used as special bedding material. He was advised that this would have to be determined depending on conditions encountered after initial excavation.

A discussion was made of Temporary Protection and Direction of Traffic. The contractor was advised of the need of portable flashing barricades.

Mr. Focht of the North Board of Control indicated that they were at this time not in complete agreement with the grade of the pipe line as established by the plans. It seems that an irrigation box located at S. W. 4th Ave. is supposed to be four feet deep and if it is this will not allow a required one foot per thousand feet fall in connecting with project grade. It was resolved that this is only a minor problem and could be taken into account with an adjustment of grades on the last portion of the project.

Mr. Castner, City of Ontario Manager, was questioned as to the status of negotiations with the irrigation company regarding the acceptability of the plans. It was stressed that these agreements be made in writing. A letter is supposed to be forthcoming on Tuesday, October 14th.

Lastly and of no concern to this project, Tom Smith, property owner of property between the south termination of the project and S. W. 4th Ave. stated that he wanted an open ditch through his property as he did not want to stand the expense of paying for the pipe. This is strictly a future problem between Mr. Smith and the city of Ontario.

E. S. Thompson
Resident Engineer

W. A. Tison
by W. A. Tison
Assistant Resident Engineer

cc: Gray Conde Co
West Coast Contrl
City of Ontario
E. E. Morgan
R. G. Cox

RECEIVED
SEP 24 1969
FOR FILING

SU-23-103(1)

1304

September 24, 1969

Caley Construction Co., Inc.
Box 4354
Boise, Idaho 83705

Gentlemen:

We enclose for your files a fully executed copy of the following described contract which was awarded to you by the State Highway Commission:

Contract No. 7309 for an irrigation system on the N.W. 4th Avenue-Arcata Way Section of FAS 23-103 in Malheur County.

A copy of this contract is also being sent to the surety on your performance bond.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

EF

Enclosure

cc: United Pacific Insurance Company, Portland and Tacoma
F. D. Morgan
I. D. Merchant
D. J. Barbee
H. S. Coulter
E. S. Thompson

STATE COPY

Approved; Budget Bureau No. 41-R2089.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-44		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT	COUNTY
3	(PPM 21-7) 9-19-69	Malheur
		PROJECT NO. S-23-103(1)

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

NW. 4th Ave. - Arcata Way (Ontario) Section - FAS-23-103

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	8-6-69	0.00
OTHER (Specify)		

FUNDS Pro rata 63.54

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 111,603	$ 70,900.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By J. K. Klabo

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By L. L. Green
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer SEP 19 1969

Oregon State Highway Division

Federal-Aid
Project No. SU-23-103(1)

N.W. 4TH AVE.-ARCATA WAY (ONTARIO) SECTION

FAS-23-103 IN MALHEUR COUNTY

Project Agreement Estimate

Salem, Oregon, September 10, 1969

Type Code Y060
Irrigation Adjustment (Sta. 25+50 to Sta. 46+50)(Contract No. 7309)

Temporary Protection and Direction of Traffic	All Required		$ 1,000.00
Ditch Excavation, Unclass.	130 cu.yd.	$ 1.00	130.00
Trench Excavation, Unclass.	4,450 cu.yd.	1.50	6,675.00
Pavement Replacement	220 lin.ft.	5.00	1,100.00
8-inch Sewer Pipe	160 lin.ft.	3.00	480.00
12-inch Sewer Pipe	210 lin.ft.	4.50	945.00
15-inch Sewer Pipe	4 lin.ft.	9.00	36.00
18-inch Sewer Pipe	18 lin.ft.	10.00	180.00
36-inch Sewer Pipe	12 lin.ft.	20.00	240.00
48-inch Sewer Pipe	2,340 lin.ft.	32.00	74,880.00
8-inch Siphon Pipe	68 lin.ft.	4.00	272.00
10-inch Culvert Pipe, Nestable	12 lin.ft.	10.00	120.00
Pump Station, Sta. 36+25	All Required	3,200.00	3,200.00
Concrete Headwall, Sta. 46+30	All Required	400.00	400.00
Special Manholes	4 only	1,700.00	6,800.00
Siphon Boxes	2 only	500.00	1,000.00
			$ 97,458.00
Flagging (60% of Contractor's Cost)	All Required		$ 500.00
Furnish and Install Pump	All Required		2,500.00
Special Bedding for Pipe	All Required		1,000.00
			$ 4,000.00
	Subtotal		$101,458.00
	10% Engr. & Cont.		10,145.00
	Total		$111,603.00

Length of Project - - - - 0.00 Mile

Federal Funds -	$ 70,900.00
State Funds -	20,351.50
County Funds- -	20,351.50
Total	$111,603.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920;
Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1-100%

Prefix: 523-1020

OREGON STATE HIGHWAY DEPARTMENT

FORM A-190 (3-64)

HIGHWAY DEPARTMENT INVOICE

NO. 99816

DATE	BILLING REQ. NO.	YOUR ORDER NO.	CREDIT DISTRIBUTION
9-16-69	CC 1198		523-1020-997

- Malheur County
- Malheur County Court
- Courthouse
  Vale, Oregon 97918

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DEPARTMENT

SEND REMITTANCE TO:
OREGON STATE HIGHWAY DEPARTMENT
STATE HIGHWAY BUILDING
SALEM, OREGON 97310

RECEIVED
SEP 17 1969
ENGINEER
COUNTY & CITY DIVISION

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Attention: Hon. Ellis A. White			
Advance Deposit			$3,000.00
Partial transfer of the advance deposit for the W.W. Fourth Avenue Arcata Way Section of Verde Drive, FAS 93-103, (irrigation facilities) covered by agreement dated April 25, 1967.			17,000.00
To be retained			6,000.00

ACKNOWLEDGEMENT OF BILLING REQUEST

Cash Received with Request $_____

By _____

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

September 17, 1969

Malheur County Court
Courthouse
Vale, Oregon 97918

Attention Hon. Ellis White
Malheur County Judge

Re: Irrigation Facilities
N.W. Fourth Avenue - Arcata Way Section
Verde Drive
FAS 23-103
Malheur County

Gentlemen:

This is to acknowledge receipt of the County's advance deposit in the amount of $23,000 for subject project.

Enclosed is a copy of Contract 7309 along with a copy of the construction plans. If additional copies are required, please notify and they will be forwarded promptly.

Very truly yours,

H. S. Cox
County and City Engineer

By: Harold Reynoldson
Planning Engineer

HR:ljt
Enclosure

NOTED
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
P. B. Ammerman

NOTED
R. H. PRANGE

NOTED
MAYNOR C. HOLMES

NOTED
DON HARWELL

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

August 29, 1969

RECEIVED
AT ..... M.
SEP 2 1969
MALHEUR COUNTY

Malheur County Court
Courthouse
Vale, Oregon 97918

Attention: Hon. Ellis D. White, County Judge

Gentlemen:

On August 28, 1969, the lowest of the three bidders for the irrigation facilities project on the NW 4th Avenue-Arcata Way (Ontario) Section, Verde Drive (FAS 23-103), was Galey Construction Company, Inc., Boise, Idaho.

Even though this bid price is approximately 50% greater than our estimate, it has been decided that the bid should be accepted and we should proceed with the project. To take the time to re-advertise could jeopardize the project by making the completion date late enough to interfere with spring irrigation, which would possibly result in a year's delay. Mr. Castner, Ontario City Superintendent, in a telephone conversation yesterday expressed the same thoughts and a desire to proceed with the project.

As per the agreement between the State and County, the following advance deposit is required from the County prior to awarding of a contract:

Bid Items	$ 97,458.00
Flagging	500.00
Furnish and install pump	2,500.00
Spec. bedding for pipe	1,000.00
13-1/2% engineering and contingencies	13,696.83
Estimated Total Cost	$115,154.83

County Advance Deposit:

20% of $115,154.83 = $23,030.96 or say $23,000.00

E.A.W.

RECEIVED

MEMO TO FILES
September 15, 1969

NW 4th Avenue-Arcata Way Section (Ontario)

Verde Drive FAS 23-103

In a phone conversation today, Mr. Castner (Ontario City Manager) informed me that all negotiations with the irrigation company had not been completed. There is a verbal understanding, but no signed agreement between them.

I informed him that the contract had been let (September 8, 1969) and that he should go through our resident engineer (Thompson) and make some arrangements with the contractor about the work schedule.

The right-of-way certificate for this project was received from the county July 23, 1969.

Harold Reynoldson
Planning Engineer
County and City Division

NOTED
HAROLD
REYNOLDSON

HR:mm

cc: E. S. Thompson, Res. Engr.
(Ontario)

NOTED
P. B. Arnemeier

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

September 12, 1969

Mr. C. Lloyd Castner
City Manager
City Hall
Ontario, Oregon 97914

RE: NW 4th Avenue-Arcola Hwy Section
Verde Drive, FAS 23-103

Dear Mr. Castner:

This is in reply to your September 5 letter with some questions concerning the plans for this project.

In your letter you mentioned that earlier the base rock was to be 13½ inches. I checked on this to make sure. You are correct about the 13½ inches, but this was an estimate to get things started and, after the soil in the area was tested and an up-to-date traffic count was taken, the base rock was changed to 15 inches.

The other questions raised in your letter are covered by a copy of the memo written by our design engineer, Mr. Frank Terpin.

If there is any question, please do not hesitate to contact this office.

Very truly yours,

H. S. Cox
County and City Engineer

By

Harold Reynaldson
Planning Engineer

HR:mm
Encl.

NOTED
P. B. Ammerman

NOTED
RICHARD UNREIN

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
MAINOR C. HOLMES

NOTED
DON HARWELL

RECEIVED
SEP 11 1969
ENGINEER
COUNTY & CITY DIVISION

FAS 23-103
(Mallam Co)
+ Ontario

3.30
1.67
1.63

Reynoldson: Listed below are our remarks in answer to the items contained in Castner's letter.

(1) The finish grade in the vicinity of NW 2nd & 3rd Ave. cannot be lowered without increasing the strength of the sewer (irrigation) pipe from Cl. III & Cl. V. This is estimated to be in the neighborhood of 9.00/lin ft, or approximately $9,000.00. It might be done for less money but would require putting an undesirable sag in the profile.

(2) Locating the syphon box at Lt. of Sta. 46+00 on the R/W as discussed would present the problem of leaving a bend in the exist 8" irrigation line with no means of access for maintenance.

(3) Installing the 48" pipe on the R/W will require extensive re-modeling of the low pressure pump house inlet channel & trash rack since according to our information the distance between R/W Line and the pump house inlet is only 2.5'.

It appears that the ditch is presently on private property unless an easement was acquired at the time the ditch was built.

It is my opinion that the adjacent property owner would be happy to grant an easement and have the ditch filled up.

Frank E. Perpin
Final Design Engr.

CITY OF Ontario

NOTED
H. S. COX

FROM THE OFFICE OF CITY MANAGER
Please Direct All Correspodence
On This Matter To The Above.

P.O. BOX 159 - ONTARIO, OREGON
97914

September 5, 1969

RECEIVED
SEP - 8 1969
ENGINEER
COUNTY & CITY DIVISION

Mr. H. S. Cox
County-City Division
Oregon State Highway Department
Salem, Oregon

Dear Mr. Cox:

The Ontario City Council at its meeting on September 2nd considered the award of bid for the FAS Project 23-103 in connection with improvements of Verde Drive from N. W. 4th Avenue to Arcata Way. Members of the council present unanimously voted to pass a resolution which is attached. The resolution urges and recommends to the Oregon State Highway Department that the low and best bid for the project be awarded. We feel strongly that the project should commence.

You recently sent us a set of plans and specifications for the project. We were concerned of the future finish grade of the center line of the street at its intersection with N. W. 2nd and 3rd Avenues. The finished grade at those intersections is higher than the future grade of N. W. 2nd and 3rd Avenues. It will be difficult to raise the grade of the streets because of the grade of the adjoining property. We wish that you would review the future finished grade of the street surfacing at those two locations and lower it consistent with the future grade of the street intersections.

NOTE

In the same set of plans and specifications you indicated that the gravel base would need to be 15 inches of gravel. Placement of this base is to be performed by the City of Ontario. It is our understanding earlier that the base would be only 13½ inches of gravel. We feel the earlier amount is adequate for this type of street. We wish you would review the requirement.

You also sent to us a request that we obtain permission from adjoining owners to place structures on their private property. The City

NOTED
DON HARWELL

Attorney has prepared easements with each of the owners. One of the structures was a siphon box to be placed on the east side at 46.00. It appeared to me that the siphon box could be placed in the existing right-of-way, since the curb line is 22 feet from center line at this location and a right-of-way is 30 feet from center line.

The same letter also indicated an interest in obtaining easement for the 48 inch pipe which is placed in the ditch running in a westerly direction at 46.30. The right-of-way at this location is 50 feet in width and the road is not being improved. It would appear that sufficient right-of-way exists without obtaining an additional easement for the placing of the pipe.

I am confident that the necessary additional easements can be obtained.

Very truly yours,

C. Lloyd Castner
City Manager

CLC:rmg

Encl:

RECEIVED
SEP 5
ENGINEER
COUNTY & CITY DIVISION

RESOLUTION OF COMMON

COUNCIL, CITY OF ONTARIO

WHEREAS, by virtue of a joint financing arrangement between the Bureau of Public Roads, Oregon State Highway Department, The City of Ontario, and users of adjacent property owners, the latter acting through an improvement district, plans for placing in a pipe the irrigation water which parallels Verde Drive from Arcata Way to N.W. 4th Avenue in Ontario, Malheur County, Oregon, have been completed; and,

WHEREAS, the City of Ontario contemplates the improvement of Verde Drive by surfacing the said street and placement of curbs and gutters thereon at a later date; and,

WHEREAS, the Oregon State Highway Department, in accordance with its established procedures has obtained bids for the said placement of the irrigation water in pipes in the area above described and the low bid submitted by Galey Construction Company in the sum of $97,458.00, the same being in excess of the engineering estimate of the Highway Department which estimate was $64,500.00; and,

WHEREAS, the decision must now be made as to whether the low bid will be accepted or other and different action be taken with respect to said construction and the Common Council of the City of Ontario being fully advised,

NOW THEREFORE, IT IS HEREBY RESOLVED AS FOLLOWS:

That in view of the safety and traffic movements that are involved in the City of Ontario and the safety to children and other persons and users of said Verde Drive being of such paramount importance; and in view of the existing hazards that will continue by delaying the construction of said pipe enclosure, the Common Council of the City of Ontario does hereby urge and recommend to the Oregon State Highway Department that the low and best bid for the placement of said irrigation water in a pipe as aforesaid be accepted and that contracts be let for the performance of said construction.

BE IT FURTHER RESOLVED: That the City of Ontario provide such additional funds as will be necessary on the part of the City of Ontario to meet its share of the total construction cost based upon the low and best bid and said construction program being accepted by the Oregon State Highway Department

PASSED and adopted by the Common Council of the City of Ontario, this 2nd day of September, 1969, by the following vote:

AYES: Councilmen Cates, Smith, Turner and Powell **NAYS:** None
ABSENT: Councilmen Holloway and Barlows

APPROVED by the Mayor of the City of Ontario, this 2nd day of September, 1969.

Mayor

ATTEST:

City Recorder

RECEIVED
NOV 1 - 1969
FOR FILING

SU-23-103(1)
73.9

Bid Aug 28

September 8, 1969

Caley Construction Co., Inc.
Box 4354
Boise, Idaho 83705

Gentlemen:

The State Highway Commission on September 2, 1969, accepted your proposal for an irrigation system on the N.W. 4th Avenue-Arcata Way Section of FAS 23-103 in Malheur County for the sum of $97,458 and referred it to the State Highway Engineer with authority to award the contract as soon as approval of Malheur County was received and the sum of $23,000 was deposited by the County.

These conditions were fulfilled and the State Highway Engineer today awarded you the project, which has been assigned Contract No. 7309.

Enclosed are three copies of this contract. Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar day count on this contract will begin September 19, 1969.

Very truly yours,

Floyd Quary, Secretary
OREGON STATE HIGHWAY COMMISSION

er
Enclosures

bc: Pacific Builder & Engr., Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wn., & Portland, Ore.
F. D. Morgan
I. D. Merchant
D. J. Barbee
William Geibel (SAIF)
H. S. Coulter
E. S. Thompson

RECEIVED
SEP 4 - 1969

FORM B-30 (12-67)

SU-23-103(1)
7309

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 4, 1969

SUBJECT:
N.W. 4th Ave.-Arcata Way Section
Oregon Project SU-23-103(1)

To:

MEMORANDUM TO THE FILE

On August 28, 1969, we received three bids for the subject project. Galey Construction Co., Inc., of Boise, Idaho, submitted the low bid of $97,458.00, which is $32,956.50, or 51.1% over the engineer's estimate of $64,501.50. The other bids were in the amounts of $134,751 and $140,621.94.

The amount of $32,956.50 over our estimate is a result of the 48-inch sewer pipe being bid at $32.00 per lin. ft. instead of our estimate of $17.00. The $17.00 estimate was inadvertently established from the cost data of another type of culvert pipe and our estimate should have been approximately the same as the bid amount of $32.00. To substantiate this contention, the 1969 dealer net price published for the Willamette Valley area f.o.b. the plant for type 3 sewer pipe reinforced with rubber rings is $18.60. The transportation, dealer's profit, contractor's profit, and installation cost must be added to the f.o.b. price to arrive at the installed price. With the one item of the engineer's estimate adjusted to the bid price, this bid would be less than the engineer's estimate and it is considered a reasonable bid.

The Malheur County Court is very eager to proceed with the award of this project in order to clear the way for contracting an improved city street section next summer.

Considering the foregoing, we feel it is in the public interest to award the contract to the low bidder as soon as the county's advance deposit is received.

L. H. Young
Program and Planning Engineer

DAR:ia
cc: R. E. Simpson, BPR
F. B. Klaboe
F. D. Morgan
H. S. Cox
C. G. Swenson
E. L. Johnsen

RECEIVED
SEP 5 1969

SU-23-103(1)

7309

MISC. CONTRACTS AND AGREEMENTS No. 3772

August 26, 1969

Malheur County Court
Courthouse
Vale, Oregon 97918

Attention: Mr. Robert Norcom
County Clerk

Gentlemen:

Enclosed for your files is a fully executed copy of an agreement covering N.W. Fourth Avenue-Arcata Way Section of FAS 23-103 (Verde Drive County Road).

A fully executed copy of this agreement has been retained for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

By
C. W. Head, Assistant Secretary

sj

Enclosure

bc H. S. Cox
(one conformed agreement attached)

TRANSACTION NUMBERS 8-22 THRU 8-25

Recd 8-8-69 Cpt - Jam

FORM PR-48
(REV. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: OREGON

DATE: 8-6-69

BY (Signature): MR. YOUNG'S JULY 24, 1969 LETTER

TITLE:

CLASS OF FEDERAL FUNDS: ☐ FAI ☐ FAP ☐ FAU ☒ FAB ☐ OTHERS

STAGE 1 * ITEM NOS. _____ THRU _____

STAGE 2 ITEM NOS. 1008 THRU 1011

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS	OTHER IDENTIFICATION AND/OR REMARKS (State) LOCATION	WORK
1008	SU 128 (6)	1.25	215,000	129,000	POWDER RIVER SECTION	GR. DR. LOW TYPE SURF.
1009	S 12-104(1) 1210(401)	7.47	475,000	285,000	MILLER RANCH-WICKIUP FOREST CAMP SECTION	BASE ROCK, INTERMEDIATE TYPE SURFACE
1010	SU 23-103(1) 2310(301)	0.51	85,000	51,000	N.W. 4TH AVENUE ARCATA WAY SECTION	IRRIGATION FACILITY ADJUSTMENT
1011	S 569(1)	0.015	85,000	51,000	SILVER CREEK (SILVERTON) BRIDGE	STRUCTURE

RECEIVED
AUG 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

REMARKS (Division)

YOU ARE AUTHORIZED TO PROCEED WITH ACTIONS NECESSARY TO ADVANCE TO COMPLETION THE PHYSICAL CONSTRUCTION PROVIDED FOR BY THE ABOVE PROJECTS IN ACCORDANCE WITH THE PROVISIONS OF YOUR APPROVED SECONDARY ROAD PLAN. IF YOU SUBSEQUENTLY FIND THAT EXCEPTIONS TO THE PROCEDURE WILL BE NEEDED OR THAT YOUR PROPOSED DESIGN STANDARDS FOR THESE PROJECTS ARE LOWER THAN THE MINIMUM DESIGN STANDARDS AS APPROVED JUNE 24, 1968, THIS OFFICE SHOULD BE NOTIFIED OF SUCH PROPOSED EXCEPTIONS AND REASONS THEREOF.

RECEIVED
AUG 11 1969

FOR FILING

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE
		8-6-69	R. E. SIMPSON, DIVISION ENGINEER

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-9

RECEIVED
JUL 31 1969
FOR FILING

SU-03-103(1)
7309

July 24, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97301

Dear Sir:

We are submitting program data for four secondary projects, Items 1008 through 1011, which we desire to have included in the Federal-Aid Secondary Highway Program.

These projects have been selected by the State Highway Commission and local authorities in cooperation with each other as required by the Federal-Aid Act.

It is our present intention to receive bids for these projects on August 28, 1969.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Program & Planning Engineer

RMC:aw

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO B.C.

FORM PR-1 (REV. 4-61)

7-24-69

FEDERAL-AID PR (PPM 2

CARD 2	REPORT NUMBER (18) (20) 1	PROJECT LOCATION (45 typewriter spaces) 21 Co. Rd. Jct. Ore. 201 N. 0.51 mi. (Ontario) 66							ADT	PRESENT 1,550	FUTURE (66) 2,250	(70)	YEAR (71) 89		
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 29 Irrigation facility adjustment. 62		NATL. FOREST (63) (65)	FH ROUTE NO. (66) (68)	SUPV. ADCT (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72) (73)	PL. AUTH (74)						
CARD 4	CLASS OF FEDERAL FUNDS Secondary									COUNTY NAME Mal					
	NAME OF URBAN AREA 17-31 Ontario									ROUTE NO. S	FEDERAL-AID 23-10				

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT CO TOTAL ESTIMATED COST	FEDERAL FUNDS
1	(1-4) (5)	(10)	41	42	43 46	55		(56) (58)	(59) (66)	(67) (7
5					PE		Co. Rd. 0.1 mi. N. of Jct. Ore. 201 N. 0.51 mi. (Ontario) (N.W. 4th Ave.- Arcata Way Section)			
5					ROW					
5					CONST (CODE)			0.51	85,000	51,000
								0.51	85,000	51,000

CARD 1	CODE 1	PREPARED BY	PROJECT TOTALS
1	14	PROGRAM APPROVAL DATES	(18) (23) (24)

The Owyhee Project North Board of
this irrigation facility.

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

-69

	ADT	PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
	ADT	1.550	2.250	89	08	Oregon	35	022	1010

FEDPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER: PREFIX LETTER(S)	NUMBER	SEQ. NO.	I. Projects Only: POST MI.	DESIG.
					SU-	23-103(1)			

COUNTY NAME: Malheur — CODE: 045

ROUTE NO. S — FEDERAL-AID: 23-103 — STATE: Co. Rd. — U.S.

PROGRAM STAGE: [ ] 1 OR [X] 2

MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
					Irrigation facility adj. consisting of installing 48' pipe, pumping Sta. cpt., connections to future storm sewer system. (For Future 2-12' lanes HT. pave., 10' to 12' parking and curbs.) ROW - 44' min; access control - none; Parking Restrictions - none.
0.51	85,000	51,000	17,000	17,000 (Co.)	
0.51	85,000	51,000	17,000	17,000(Co.)	

REMARKS

Relocation Payments - None involved.

The Owyhee Project North Board of Control (Nyssa) and the City of Ontario control this irrigation facility.

USCOMM DUSCOMM-DC 49868-P61

N. W. 4th AVENUE - ARCATA WAY SECTION

PROJECT SU-23-103(1)

EXISTING FACILITIES: A city street 30' in width having 22' of oil mat surfacing and 4' gravel shoulders. An open ditch irrigation canal is within the right of way. The City has an irrigation system for the use of some individual owners which is partially within the right of way.

ADJACENT SECTIONS:

NORTH END: 18' bituminous oil mat with 2' gravel shoulders.

SOUTH END: 22' bituminous oil mat with 4' gravel shoulders.

PROJECT DATA: Relocate, construct, and adjust irrigation facilities, including placing an irrigation canal in a 48" pipe underground within the right of way of Verde Lane. This will provide service to individual property owners, a lateral irrigation ditch, and to the low pressure system of the City of Ontario. Provide for outlets for a future storm sewer system.

RIGHT-OF-WAY: Minimum 44'
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: None

SYSTEM ACTION: Completed
PUBLIC HEARING: Held May 28, 1969

UNUSUAL OR COMPLICATED SITUATIONS: This is a stage construction project having a second contract to do basing, curbing, and paving of this city street which is to have 2-12' travel lanes and parking lanes varying from 10' to 12' in width.
ROUTE DATA: This route is partly within the City of Ontario and is included as part of the street syst It is a mail and school bus route.
PARKS AND RECREATION AFFECTED: No
RELOCATION ASSISTANCE: No
SOCIAL, ECONOMIC, AND ENVIRONMENTAL EFFECTS CONSIDERED: Yes
LOCATION & DESIGN APPROVAL: Provision of PPM 20-8 are being complied with.

The State doesn't, at this time, have legal authority to regulate the use by Utilities of the right of way of this project. However a State-County agreement is being prepared to comply with paragraph 6d(1) of PPM 30-4.1.

N. W. 4th AVENUE - ARCATA WAY SECTION

PROJECT SU-23-103(1)

CILITIES: A city street 30' in width having 22' of oil mat surfacing and 4' gravel
An open ditch irrigation canal is within the right of way. The City has an irrigation
e use of some individual owners which is partially within the right of way.

CTIONS:

END: 18' bituminous oil mat with 2' gravel shoulders.

END: 22' bituminous oil mat with 4' gravel shoulders.

A: Relocate, construct, and adjust irrigation facilities, including placing an irrigation
48" pipe underground within the right of way of Verde Lane. This will provide service to
roperty owners, a lateral irrigation ditch, and to the low pressure system of the City of
ovide for outlets for a future storm sewer system.

Y: Minimum 44'
ROL: None

None
IGN STANDARDS: None

ON: Completed
NG: Held May 28, 1969

COMPLICATED SITUATIONS: This is a stage construction project having a second contract to do the
rbing, and paving of this city street which is to have 2-12' travel lanes and parking lanes
m 10' to 12' in width.
: This route is partly within the City of Ontario and is included as part of the street system.
il and school bus route.
RECREATION AFFECTED: No
ASSISTANCE: No
ONOMIC, AND ENVIRONMENTAL EFFECTS CONSIDERED: Yes
DESIGN APPROVAL: Provision of PPM 20-8 are being complied with.

tate doesn't, at this time, have legal authority to regulate the use by Utilities of the
y of this project. However a State-County agreement is being prepared to comply with
6d(1) of PPM 30-4.1.

RECEIVED
JUL 24 1969
ENGINEER
COUNTY & CITY DIVISION

File

RESOLUTION

In accordance with Section 141, Chapter 1, Title 23, United States Code, Malheur County does hereby resolve and give the following assurances:

1) that every reasonable effort shall be made to acquire the real property by negotiation;

2) that the construction of projects shall be so scheduled that to the greatest extent practicable no person lawfully occupying the real property shall be required to move from his home, farm, or business location without at least 90 days' written notice from the State or political subdivision having responsibility for such acquisition; and

3) that it will be the policy of the County, before initiating negotiations for real property, to establish an amount which is believed to be just compensation, under the law of the State, and to make a prompt offer to acquire the property for the full amount so established.

APPROVED July 23 1969
COUNTY COURT OF Malheur COUNTY
BY Ellis A. White
COUNTY JUDGE
E W Mead
COUNTY COMMISSIONER
Henry Eplin
COUNTY COMMISSIONER

RECEIVED
AT ..... M.
JUL 17 1969
MALHEUR COUNTY

23

Oregon State Highway Commission
State Highway Building
Salem, Oregon

Attention: County and City Division

7-22-69
NOTED
H. S. COX

SUBJECT: Federal Aid Project No. _____

Highway No. FAS 23-103

Project Name N.W. Fourth Avenue-Arcata Way

Section: Verde Drive (Ontario)

Gentlemen:

1. We hereby certify that, to the best of our knowledge and belief, all rights-of-way or rights-of-entry for the above referred to Federal-aid project have been secured.

2. We hereby certify that: (check one)

☒ There has been no displacement of persons from residences, farms, or businesses; or

☐ All displaced persons have been tendered all assistance possible and given all available information to assist in re-establishment in residence, farm, or business.

3. We hereby certify that the occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to Federal-aid project have been authorized by permit, franchise, or other approved procedure.

Dated at Vale, Oregon, this 23rd day of July, 1969.

MALHEUR County

Ellis A. White
County Judge

E W Mast
Commissioner

Henry Erlin
Commissioner

NOTED
HAROLD REYNOLDSON

RECEIVED
JUL 24 1969
ENGINEER
COUNTY & CITY DIVISION

(11/29/66)

Copy to :- John Oaks
Scott Gunter
R.N. Chase
C.G Swanson

NOTED
R. H. PRANGE

NOTED
RICHARD UNRE...

NOTED
MAINOR C. HOLMES

NOTED
DON HARWELL

RECEIVED
JUL 31 1969

SU-23-103(1)
7309

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 22, 1969

To: Mr. F. B. Klaboe
Assistant State Highway Engineer

SUBJECT: Design Approval Request
FAS-C Projects in Baker and Malheur Counties

BUILDING

Design approval is hereby requested for the following FAS-C projects which are scheduled for the August 28 bid letting:

Baker County, City of Baker
Powder River Section, McDougall Lane, FAS 506; grade, drain, and stone base a 32' top width from Old Oregon Trail Highway (US30) easterly to the Baker-Homestead Highway, a distance of 1.2 miles.

Malheur County, City of Ontario
N.W. 4th Avenue-Arcata Way Section, Verde Drive, FAS 23-103; reconstruct irrigation facilities, drain, base, curb, and pave 44' to 48' wide from Olds Ferry-Ontario Highway northerly to N.W. 4th Avenue, a distance of 0.5 miles.

The Highway Commission approved the Baker County project on May 29, 1968 and the Malheur County project on April 25, 1967 and did in effect approve the design features of the two projects, as requested by the Counties and as given in our descriptions, when project approval was requested.

If you concur that the original project approval given by the Commission constitutes the required tentative design approval, will you please notify this office so that we can proceed to place the proper notices in the newspapers that design approval is being considered, and after seven days have elapsed a second notice will be published that design approval has been granted. We hope that this procedure will establish a precedent for design approval for future FAS-C projects.

All required documentation has been received from the counties and cities involved in compliance with the various BPR PPM's and applicable sections of Title 23, U.S. Code, and are presently on file in this office. If you wish any further information, please advise.

Rec'd & COX
7-31-69

R. H. Prange
Field Engineer
County and City Division

RECEIVED
JUL 23 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RHP:eb
cc Forrest Cooper
R. L. Porter
Victor Wolfe
D. J. Barbee
L. H. Young
R. N. Chase
Ben Gifford

7-22-69

C E R T I F I C A T E

I, NADINE A. THOMPSON, the duly appointed, qualified and acting Recorder of the City of Ontario, Oregon, do hereby certify that the foregoing and attached copy of Resolution is a true and correct copy of the original resolution as adopted by the Common Council of the City of Ontario, Oregon, on the 5th day of May, ~~1968~~ 1969

GIVEN under my hand and seal of the City of Ontario, Oregon, this 22nd day of July, ~~1968~~ 1969.

Nadine A. Thompson
Recorder

RECEIVED
JUL 23 1969
ENGINEER
COUNTY & CITY DIVISION

R E S O L U T I O N

On motion of Smith City Councilman, seconded by Bellows City Councilman, the following Resolution was adopted, to-wit:

In accordance with Section 141, Chapter 1, Title 23, United States Code, the City of Ontario does hereby resolve and give the following assurances:

1. that every reasonable effort shall be made to acquire the real property by negotiation;

2. that the construction of projects shall be so scheduled that to the greatest extent practicable no person lawfully occupying the real property shall be required to move from his home, farm, or business location without at least 90 days' written notice from the State or political subdivision having responsibility for such acquisition; and

3. that it will be the policy of the City, before initiating negotiations for real property, to establish an amount which is believed to be just compensation, under the law of the State, and to make a prompt offer to acquire the property for the full amount so established.

PASSED and ADOPTED by the Common Council of the City of Ontario this 5th day of May, 1969, by the following vote:

AYES: Councilmen Cates, Holloway, Smith, Bellows and Powell

NAYS: None

ABSENT: Councilman Turner

ADOPTED by the Mayor of the City of Ontario, Oregon, this 5th day of May, 1969.

Morgan G Bell
Mayor

ATTEST:

Nadine A. Thompson
City Recorder

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JUL 23 1969
ENGINEER
COUNTY & CITY DIVISION

RECEIVED
AUG 20 1969
GAME
COMMISSION

OFFICE OF THE DIRECTOR

P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

SU-23-1030(1)
7309

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
J. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

July 18, 1969

cc's sent 7-22-69

F.B. Klaboe
L.H. Young
F.E. Terpin (5)
T.C. Roake (5)
C.G. Swenson
W.H. Tebeau
A.E. Johnson (2)
C.T. Keasey (4)
H.S. Coulter (4)

State Highway Engineer
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

This is in reply to your letter of July 7, 1969, which included plans for five projects.

A review of these projects indicate that there will be no conflict with wildlife resources.

The following projects are approved:

1. East Fremont Interchange Section Stadium Freeway, Multnomah County

2. North and South Canyonville and West Fork Interchanges Pacific Highway, Douglas County

3. Speaker Road, Wolf Creek and Sunny Valley Interchanges Pacific Highway, Josephine County

4. N.W. 4th Avenue-Arcata Way Section FAS 23-103, Malheur County

5. Barth Crossing-U.S. 30 Connection Section FAS 470, Umatilla County.

We appreciate the opportunity to comment on these projects.

Very truly yours,

R. O. Koski

R. O. Koski
Chief of Liberations

RECEIVED
JUL 23 1969
OFFICE OF
STATE HIGHWAY ENGINEER

ROK:js
cc: Dir. OFC

SAFETY: NO

MEMO TO R. N. CHASE Date July 17, 1969

FAS 23-103, MADERA COUNTY, N.W. 4th Avenue-Arcata Way SECTION

TERMINI: Beginning at the intersection of FAP 5 and Verde Lane, FAS 23-103, in the City of Ontario; then north 0.51 mile to N.W. 4th Avenue M.P. 0.00 to 0.51

PROPOSED WORK: Irrigation facilities, drainage.

NOTED
H. S. COX

PROJECT LENGTH: 0.51 mile

COSTS:	TOTAL	FEDERAL	STATE	COUNTY	OTHER
CONSTRUCTION	$85,000	$51,000	$17,000	$17,000	

EXISTING FACILITIES: A city street 30' in width having 22' of oil mat surfacing and 4' gravel shoulders. An open ditch irrigation canal is within the right of way. The City has an irrigation system for the use of some individual owners which is partially within the right of way.

ADJACENT SECTIONS:
NORTH/~~EAST~~ END: 18' bituminous oil mat with 2' gravel shoulders.

SOUTH/~~WEST~~ END: 22' bituminous oil mat with 4' gravel shoulders.

PROJECT DATA: Relocate, construct, and adjust irrigation facilities, including placing an irrigation canal in a 48" pipe underground within the right of way of Verde Lane. This will provide service to individual property owners, a lateral irrigation ditch, and to the low pressure system of the City of Ontario. Provide for outlets for a future storm sewer system.

RIGHT-OF-WAY: Minimum 44'
ACCESS CONTROL: None

RR XING: None
MINIMUM DESIGN STANDARDS: None

SYSTEM ACTION: Completed
PUBLIC HEARING: Held May 28, 1969

UNUSUAL OR COMPLICATED SITUATIONS: This is a stage construction project having a second contract to do the basing, curbing, and paving of this city street which is to have 2-12' travel lanes and parking lanes varying from 10'-12' in width.

ROUTE DATA: This route is partly within the City of Ontario and is included as part of the street system. It is a mail and school bus route.

NOTED
R. H. PRANGE

PARKS AND RECREATION AFFECTED: No
RELOCATION ASSISTANCE: No NOTED
SOCIAL, ECONOMIC, AND ENVIRONMENTAL EFFECTS CONSIDERED: Yes MAINOR C. HOLMES NOTED DON HARWELL
DESIGN APPROVAL HAS BEEN REQUESTED. Noted Oscar H. Norberg

23

CITY OF Ontario

FROM THE OFFICE OF CITY MANAGER
Please Direct All Correspodence
On This Matter To The Above.

P.O. BOX 159 - ONTARIO, OREGON
97914

July 14, 1969

NOTED
H. S. COX

Mr. Harold Reynoldson, Planning Engineer
County - City Division
Oregon State Highway Department
Salem, Oregon

Dear Mr. Reynoldson:

We have the drawings which you recently submitted to us which changed the design of the City low pressure pumping station and a street approach on the Verde Drive FAS 23-103 Project. We find the revised drawings in regard to the pumping station and street approach satisfactory.

We also agree that the relocation of the irrigation pump station to the south side of N. W. 4th Avenue would cause unnecessary delay to the bid letting. We will work with your office in negotiation with the contractor to relocate the pump to its new location after the bid opening.

Very truly yours,

C. Lloyd Castner
City Manager

CLC:rmg

RECEIVED
JUL 15 1969
ENGINEER
COUNTY & CITY DIVISION

Copy to:- Frank Terpin

NOTED
HAROLD
REYNOLDSON

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
DON HAR

23

NOTED
H. S. COX

July 11, 1969

Mr. C. Lloyd Castner
City Superintendent
City Hall
Ontario, Oregon 97912

N.W. Fourth Avenue-Arcola Way Section
Verde Drive, FAS 23-1(3)
Malheur County

Dear Mr. Castner:

Upon checking into the matter of changing the plans to move the irrigation pump station from the gravity flow location to the south side of N.W. Fourth Avenue, as you requested, I realized that this could set the project back to the next letting, which I am quite sure you do not wish. In the interest of expediency and simplicity, this pump station will be shown on the plans at the gravity flow location and the County, or the City, can make arrangements with the contractor during construction of the project to change the pump station to the desired new location. This will also give you more time to acquire the necessary additional right of way at the new location.

We received the prints of the City of Ontario's sanitary sewer plans affecting this project for which we thank you.

If there is any question concerning this project, please do not hesitate to contact us.

Very truly yours,

H. S. Cox
County and City Engineer

By
NOTED
HAROLD
Harold Reynol[illegible]OLDSON
Planning Engineer

HR:eb

bc Frank Terpin - Design

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
H. S. COX

July 8, 1969

Mr. C. Lloyd Castner
City Superintendent
City Hall
Ontario, Oregon 97914

N.W. 4th Avenue-Arcata Way Sec.
Verde Drive
FAS 23-103
Malheur County

Dear Mr. Castner:

Enclosed are two prints of the drawings for the changes in design of the City's low pressure pumping station and a street approach on this project, both at the connection of Arcata Way and Verde Lane, for your consideration.

To protect the existing low pressure pumping station and not endanger the traveling public it is planned to extend the curb along Verde Lane across Arcata Way and make a driveway depression in this curb equal to the present traveled width of Arcata Way. This depression will be approximately 26' in width, and will be the same design as used for a driveway. The City can then move the pump station and improve the street connection when they so wish.

The low pressure pumping station will have a 36" "T" connection to the 48" irrigation culvert which lies on the north side of Arcata Way.

In our telephone conversation you said that you felt that these changes would be acceptable. Will you please officially inform us so with your letter.

A copy of the plans for the sanitary sewer the City is installing on the project as discussed in our telephone conversation will be greatly appreciated. When these are tied together with the plans for the street and irrigation lines and shown on the same plan we can check to see if there is any conflict between them.

I informed the design section of your request to move the pump station to the south side of N.W. 4th Avenue and that the City would construct the facilities to carry the water from the pump station at this new location.

Very truly yours,

H. S. Cox
County and City Engineer

By : Harold Reynoldson
Planning Engineer

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

Encl.
HR:lat

Oscar I.

6-15-69

48" ϕ

GROUT

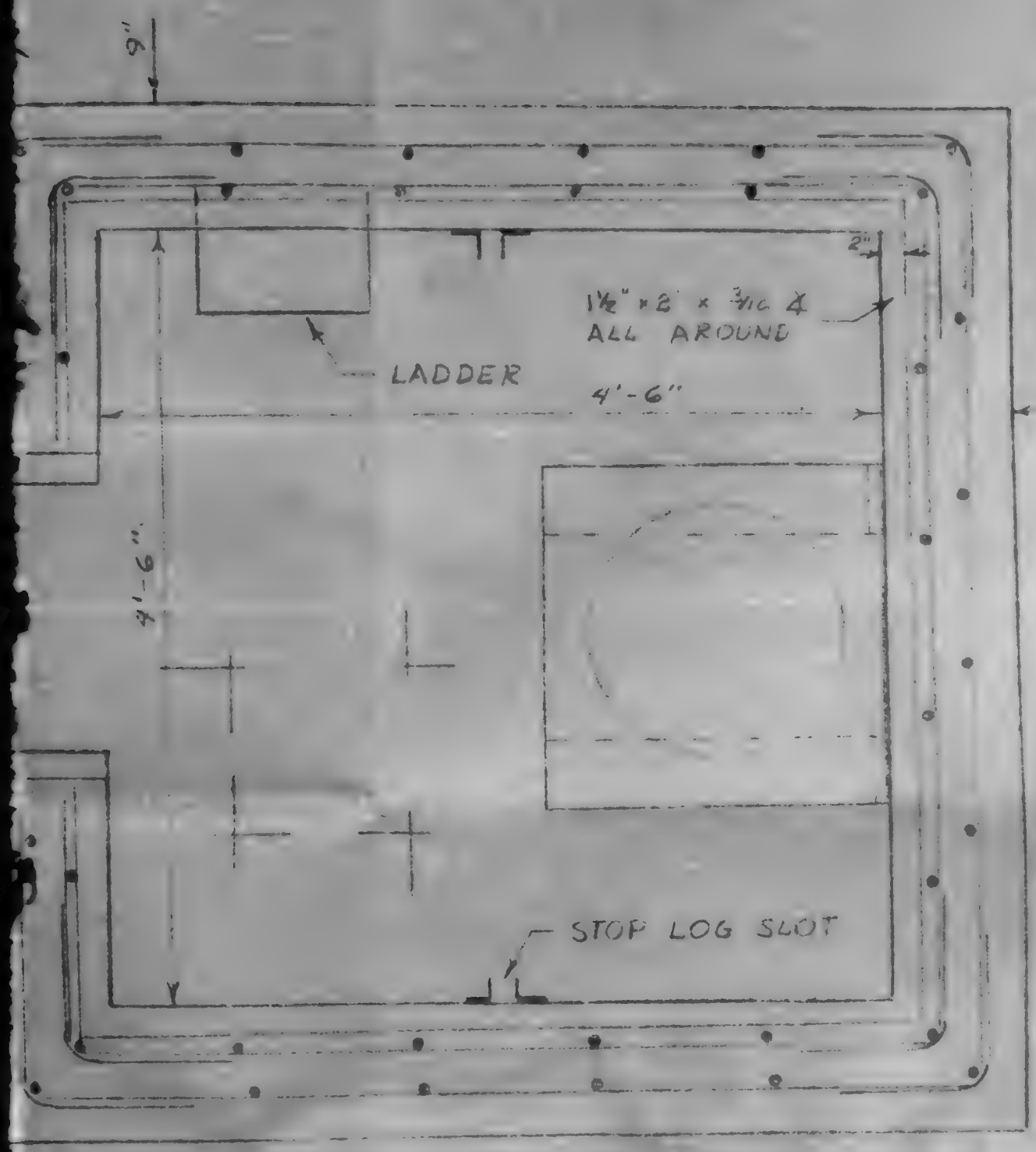
STA 35+25 ±

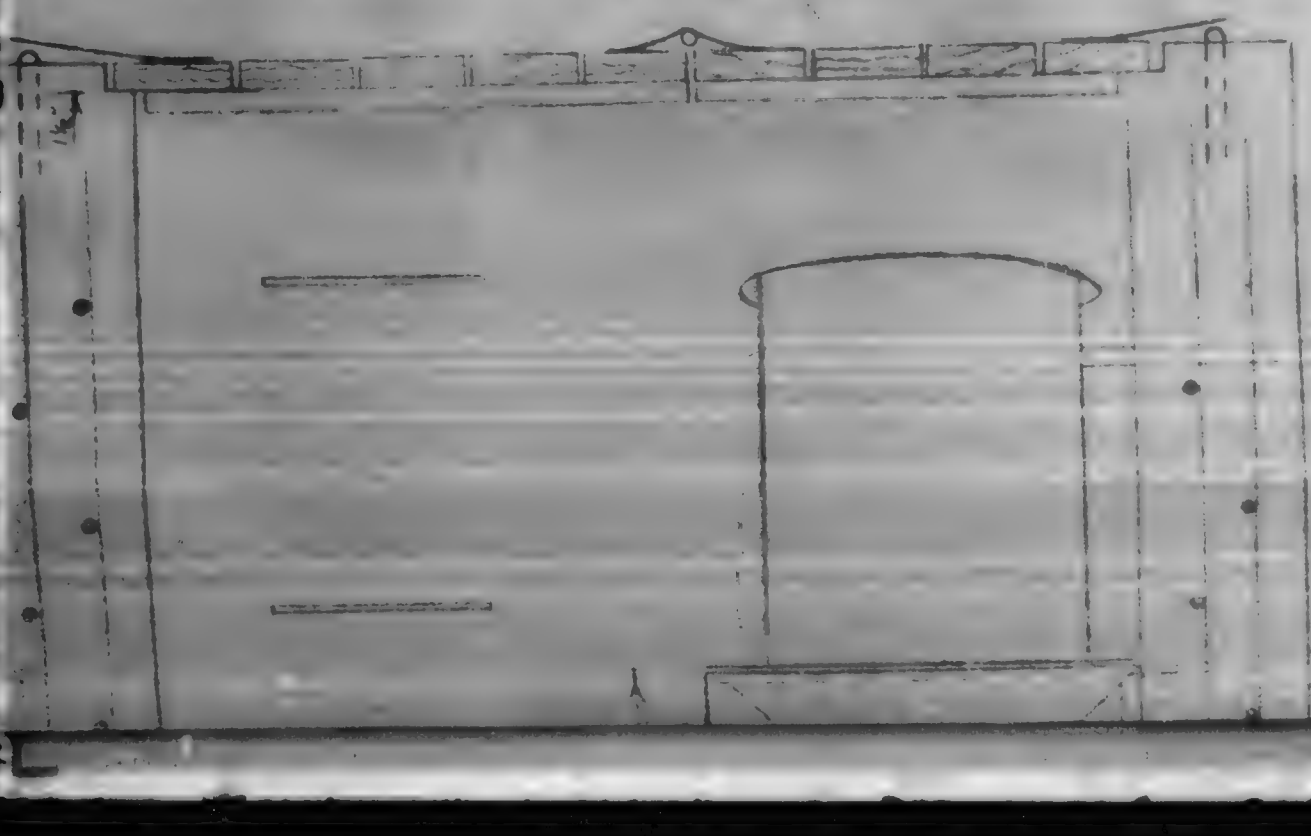
18" ϕ

#4 BARS 1'-0" O/C
EACH WAY

2180.00 ±

PLAN SCALE: 1" = 1'-0"





LID T

PROVIDE VENTILAT
BY MOTOR MANUFA

LID FROM 2"×6" H
FASTENED WITH ½"
HEAVY DUTY 5" BU
HEAVY DUTY HASPS

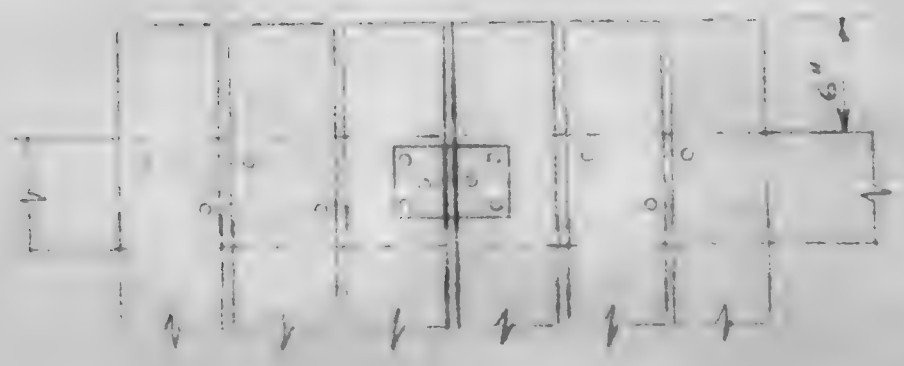
30 HP HOLLOW SH
240 VOLT 3 PHAS
12" BOTTOM DISC
T 304 IT OR 304
CASCADE PUMP CO

MOTOR MOUNT BR

STEWART CARTER DITCH

PUMP STATION

FAS 23-103



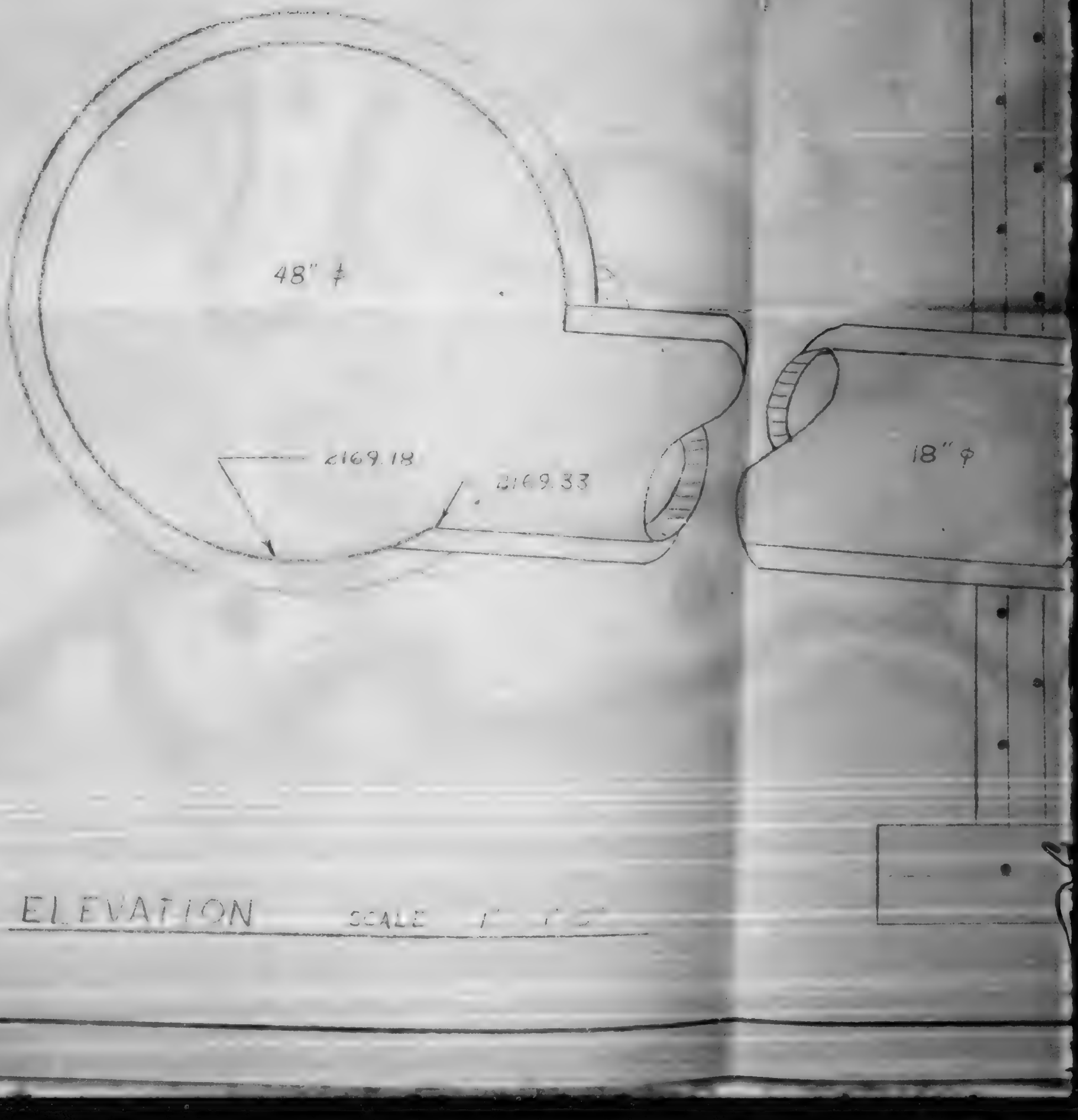
LID TYPICAL SECTION

PROVIDE VENTILATION IF RECOMMENDED BY MOTOR MANUFACTURER

LID FROM 2 x 6 PLANKS
FASTENED WITH ½" CARRIAGE BOLTS
HEAVY DUTY 5" BUTT HINGES (2 REQUIRED)
HEAVY DUTY HASPS (2 REQUIRED)

30 HP HOLLOW SHAFT PROPELLER PUMP & PANEL
240 VOLT 3 PHASE 1760 RPM
12" BOTTOM DISCHARGE
7 CU. FT. OR 3036 GPM TDH 25'
CASCALL PUMP COMPANY OR APPROVED EQUAL

MOTOR MOUNT BRACKETS FROM



ELEVATION SCALE 1" = 1'-0"

5' - 5" - 1/2" ∠'s W
SECURELY WELDED
FASTEN TO CONC. W
3/4 FLUSH SHELLS

12" DISCHAR
FLEV TO B

STOP LOG SLOT F
1 1/2" x 2" x 3/16" ∠'s
FASTEN TO CONC. W
1/2" FLUSH SHELLS
STOP LOGS TO BE

24"

12"

2165 83

12"ϕ

14"

2165 83

TOP

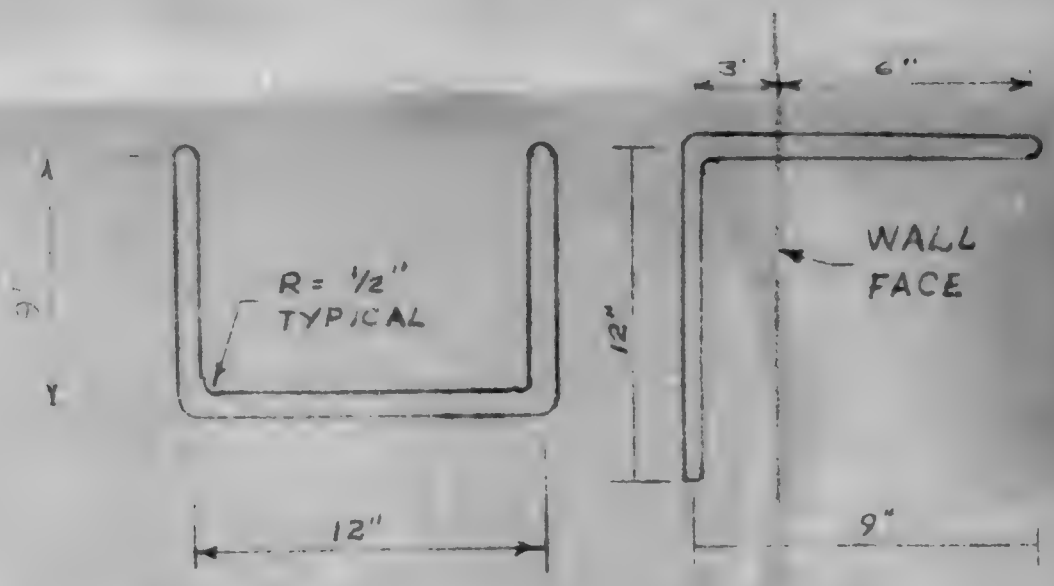
FABR
GALV

LADD

5" × 5" - ½ 4's WITH 4" × ½" BRACES
SECURELY WELDED
FASTEN TO CONC. WITH
¾" FLUSH SHELLS 6" O/C

12' DISCHARGE TO DITCH
FLEV TO BE DETERMINED

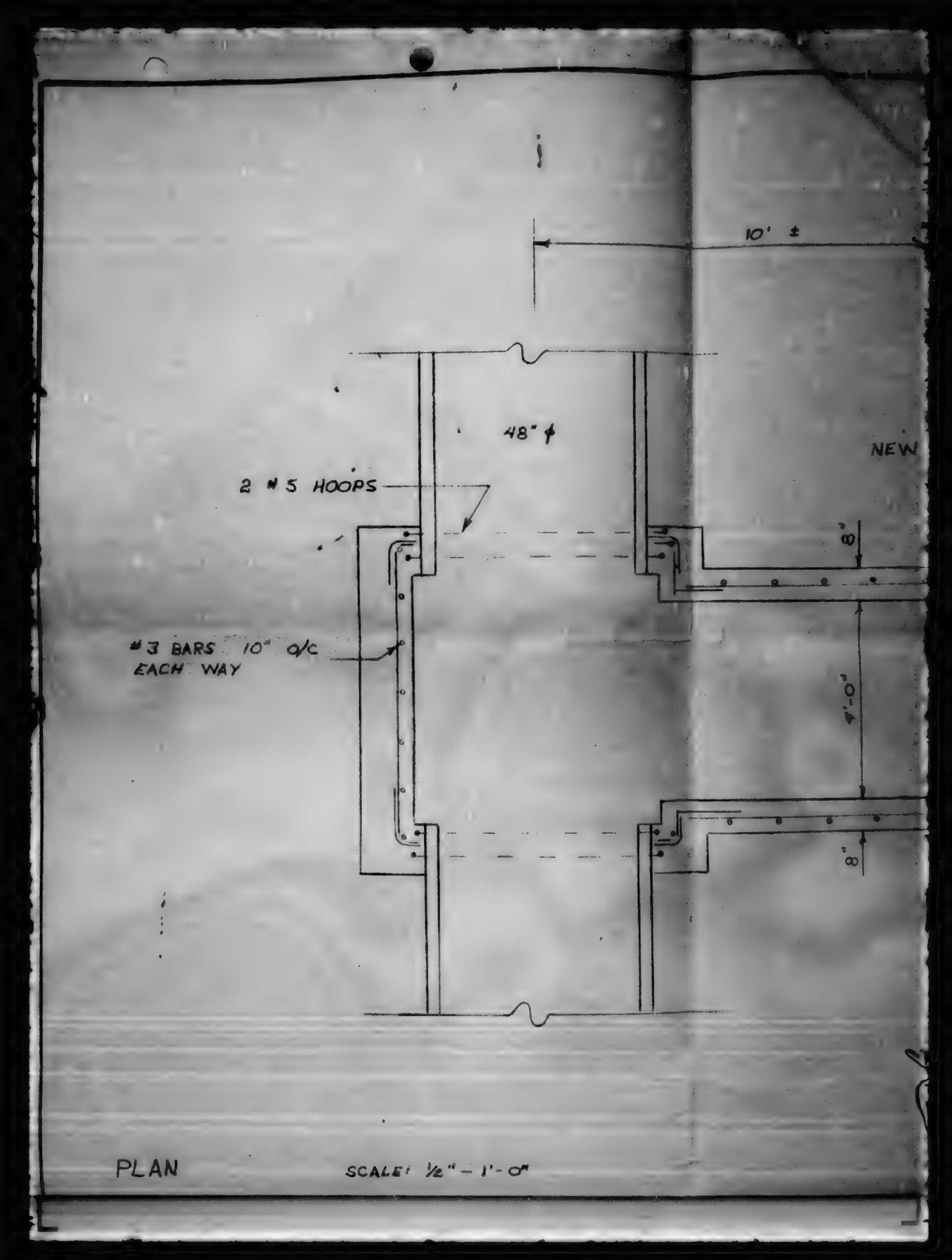
STOP LOG SLOT FROM
1½" × 2' × ¾ 4's SPACED 2"
FASTEN TO CONC. WITH
½" FLUSH SHELLS 12" O/C
STOP LOGS TO BE 2" × 6" PLANKS



TOP VIEW SIDE VIEW

FABRICATE FROM ¾" HOT DIP
GALVANIZED STEEL DOWEL

LADDER DETAIL



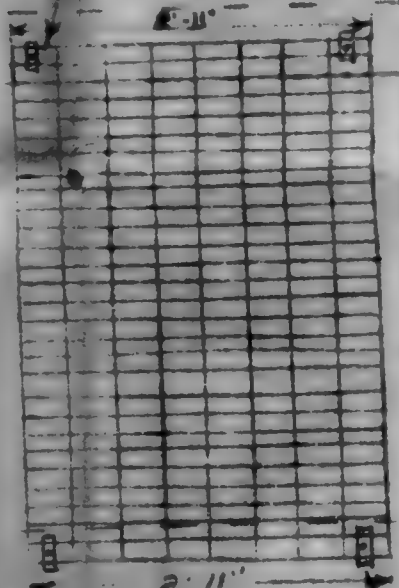
PLAN

SCALE: ½" – 1'-0"

EW

EXISTING

IRVING SUBWAY GRATING
TYPE CM-5
3/16" BEARING BARS
OR APPROVED EQUAL



EXISTING
TRASH RACK

IRVING SADDLE CLIP
4 REQUIRED

WATER TIGHT JOINT REQUIRED

NOTE
MANH
THAT
VERDE
FAS
MAL H
DATED

PUMP INTAKE

AT

VERDE & ARCATA

FAS 23-103

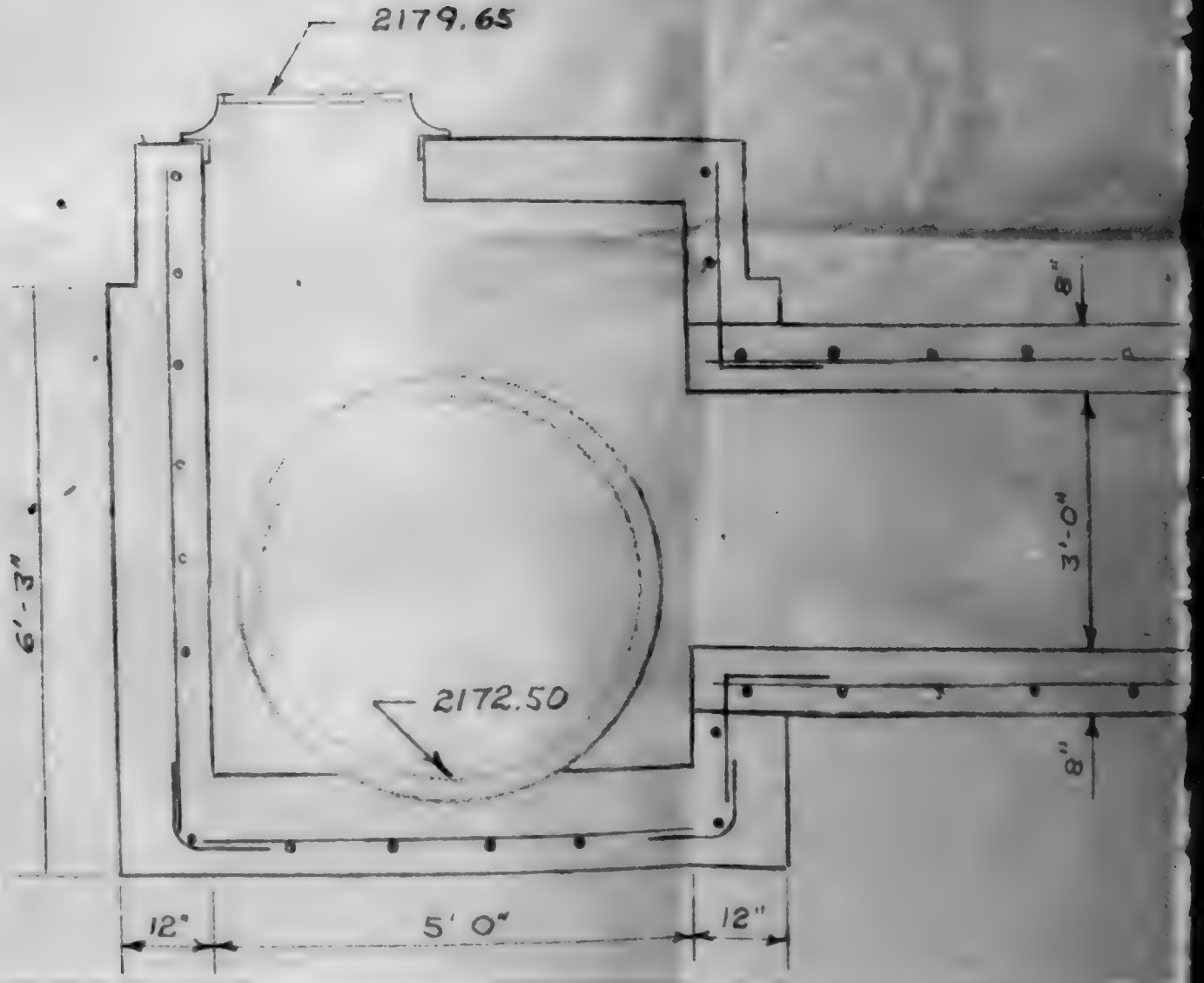
RATING

K

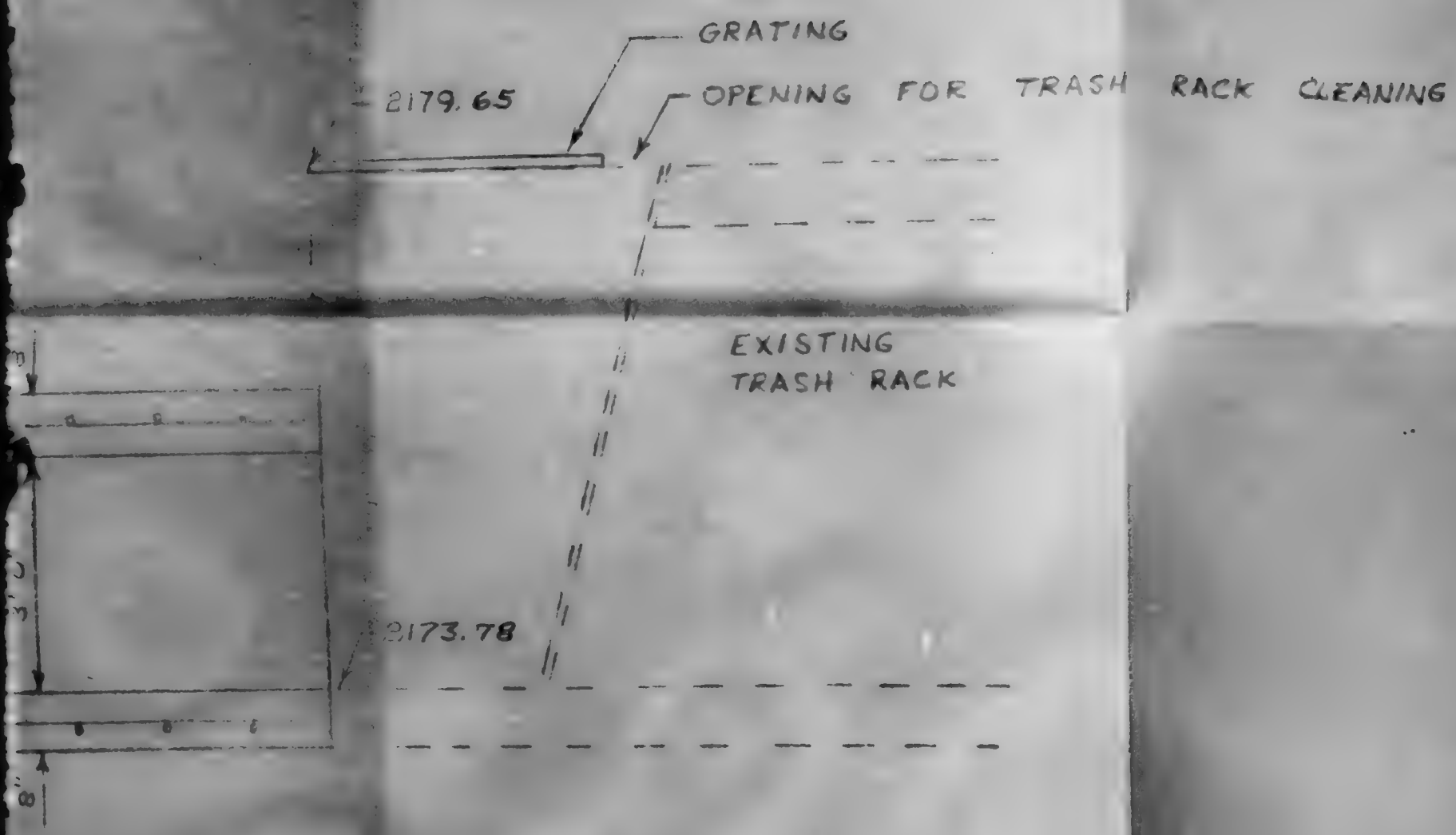
LTP

RED

NOTE:
MANHOLE TO CONFORM TO
THAT DETAILED ON SHEET NO. 2
VERDE DRIVE (ONTARIO)
FAS 83-103
MALHEUR COUNTY
DATED NOV. 8, 1968



ELEVATION SCALE: ½" = 1'-0"


GRATING
2179.65
OPENING FOR TRASH RACK CLEANING
EXISTING
TRASH RACK
2173.78
3'-0"
8"

June 13, 1969
(date)

NOTED
H. S. COX

Mr. C. Lloyd Castner
City Superintendent
City Hall
Ontario, Oregon 97914

In order to comply with requirements of the Bureau of Public Roads covering protection of public resources such as recreational areas, historical sites, wild life refuges, or any other facility in which the public has a specific interest, it is required that local public authorities should be consulted regarding the impact on these resources of a planned highway improvement.

Would you please fill out the form below regarding these resources and return it to the Oregon State Highway Department, County and City Division, State Highway Building, Salem, Oregon (97310). Retain the second copy for your records.

NOTED
DON HARWELL

Highway FAS 23-103 (Verde Drive)

Section NW 4th Avenue-Arcata Way (Ontario) Section: Irrigation

Do you know of any public organization or quasi-official organizations that might be opposed to this project on the grounds of interference with recreational, historical, or public resources? Yes [ ] No [x]

If answer is yes, please list organizations:

RECEIVED
JUN 23 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED
HAROLD
REYNOLDSON

June 20, 1969
(date)

By Virgil F Dees
Mayor

By _____
Commissioner

By _____
Commissioner

NOTED
MAINOR C. HOLMES

cc: L. H. Young
NOTED Attn: Duane Ridings
R. H. PRANGE

NOTED
RICHARD UNREIN
Noted
Oscar H. Norberg

NOTED
P. B. Arensmeier

23

NOTED
H. S. COX

REFERRED TO
Co. - City
BY SECRETARY

June 13, 1969
(date)

RECEIVED
AT ..... M.
JUN 16 1969
MALHEUR COUNTY

Malheur County Court
Courthouse
Vale, Oregon 97918

In order to comply with requirements of the Bureau of Public Roads covering protection of public resources such as recreational areas, historical sites, wild life refuges, or any other facility in which the public has a specific interest, it is required that local public authorities should be consulted regarding the impact on these resources of a planned highway improvement.

Would you please fill out the form below regarding these resources and return it to the Oregon State Highway Department, County and City Division, State Highway Building, Salem, Oregon (97310). Retain the second copy for your records.

NOTED
DON HARWELL

Highway FAS 23-103 (Verde Drive)

Section NW 4th Avenue-Arcata Way (Ontario) Section: Irrigation

Do you know of any public organization or quasi-official organizations that might be opposed to this project on the grounds of interference with recreational, historical, or public resources? Yes ☐ No ☒

If answer is yes, please list organizations:

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JUN 20 1969
ENGINEER
COUNTY & CITY DIVISION

6-19-69
(date)

By Ellis A. White

By E W Mast
Commissioner

By Henry Esplin
Commissioner

NOTED
HAROLD REYNOLDSON

cc: L. H. Young
Attn: Duane Ridings

NOTED
PRANGE

Noted
Oscar H. Norberg

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

CITY OF Ontario

NOTED
H. S. COX

FROM THE OFFICE OF CITY MANAGER
Please Direct All Correspodence
On This Matter To The Above.

P.O. BOX 159 - ONTARIO, OREGON
97914

June 13, 1969

RECEIVED
JUN 15 1969
ENGINEER
COUNTY & CITY DIVISION

Mr. H. S. (Sy) Cox
City-County Division
Oregon State Highway Department
Salem, Oregon

Dear Mr. Cox:

Enclosed is the verbatim written transcript of statements presented at the public hearing held in Ontario on May 28, 1969 regarding the Verde Drive FAS 23-103 Project. An additional ten days was provided after the hearing for individuals to submit statements or exhibits. During the ten day period no additional statements or exhibits were submitted. The attached notice was sent on April 11, 1969 to the following organizations: Idaho Power Company, Cascade Natural Gas, Malheur Home Telephone, Stewart-Carter Ditch Co., North Board of Control, Ontario Chamber of Commerce, Ontario School District 8C, Bureau of Reclamation and the Ontario Rural Road Assessment District. In addition a paid legal advertisement was published in the Ontario Argus Observer. An affidavit of that publication is attached.

The Malheur County Court has asked the Oregon State Highway Department that the road width of the project be narrowed to a 44 foot paved surface between Arcata Way and S. W. 4th Avenue. They requested the curb be placed 22 feet from the center line on the east side of Verde between Arcata Way and Idaho Avenue and that the curb line continue to be 24 feet from the center line on the west side of Verde from Idaho Avenue to Arcata Way. The County will request that the project continue as planned for a 48 foot right-of-way from Idaho Avenue to N. W. 4th Avenue. Attached to their letter will be the right-of-way certificate that the right-of-way has been obtained for the revised road width.

Very truly yours,

C. Lloyd Castner
City Manager

NOTED
MAINOR C. HOLMES

CLC:rmg
Encl:

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

Noted
Oscar H. Norberg

NOTED
P. B. Arensmeier

NOTED
DON HARWELL

NOTICE

Notice is hereby given that Malheur County Court and the City of Ontario proposes to hold a public hearing pertaining to its proposed plans for future right-of-way acquisition and construction on the N. W. 4th Avenue-Arcata Way Section of Verde Drive, FAS 23-103 lying in the City of Ontario, Malheur County, Oregon.

The proposed plans consist of replacement of irrigation facilities, grading, draining, curbs and paving forty-eight feet between curbs.

The public hearing pertaining to the general route-design features will be held in the Meeting Room of the Malheur County Library in Ontario, Oregon, on May 28, 1969, beginning promptly at 2:00 P.M., at which time any interested person desiring to express opinions pertaining to the proposal is invited to do so, and in addition may submit written statements at the hearing or to Lloyd Castner, Ontario City Manager, within ten (10) days after the public hearing. Personnel will be present to discuss the proposal, including relocation assistance programs, with those persons who may be affected by the project.

Malheur County Court
City of Ontario

RECEIVED
JUN 15 1969
ENGINEER
COUNTY & CITY DIVISION

Affidavit of Publication

State of Oregon
County of Malheur } ss.

Notice of Public Hearing (Construction)
Title of Publication

City of Ontario
Sponsor or Plaintiff

Plaintiff or Legal Agent

I, Francis R. McLean, being first duly sworn, depose and say that I am the Publisher of "The Ontario Argus-Observer," a newspaper of general circulation, as defined by Sections 1-509, 1-510, Oregon Code, printed and published at the City of Ontario in the aforesaid County and State; that Notice of Notice of Public Hearing

a printed copy of which is hereto annexed, was published in the entire issue of said newspaper for two consecutive weeks in the following issues, towit: April 24 & May 19

A.D. 19 69 being the dates of the issues in which same was published.

Francis R. McLean

Subscribed and sworn to before me this 29 day of May 29 A.D. 19 69

Notary Public for the State of Oregon

My Commission expires 4-22-, 1972

Statement

Ontario Argus-Observer

Ontario, Oregon

Number of Lines	41
Number of Insertions	2
41 Lines @ 15c	6.15
41 Lines @ 10¢	4.10
Total Cost Will Be	10.25

COPY OF NOTICE

(FIRST COPY)

NOTICE

Notice is hereby given that Malheur County Court and the City of Ontario proposes to hold a public hearing pertaining to its proposed plans for future right-of-way acquisition and construction on the N. W. 4th Avenue - Arcata Way Section of Verde Drive, FAS 83-103 lying in the City of Ontario, Malheur County, Oregon.

The proposed plans consist of replacement of irrigation facilities, grading, draining, curbs and paving forty-eight feet between curbs.

The public hearing pertaining to the general route-design features will be held in the Meeting Room of the Malheur County Library in Ontario, Oregon, on May 28, 1969, beginning promptly at 2:00 P.M., at which time any interested person desiring to express opinions pertaining to the proposal is invited to do so, and in addition may submit written statements at the hearing or to Lloyd Castner, Ontario City Manager, within ten (10) days after the public hearing. Personnel will be present to discuss the proposal, including relocation assistance programs, with those persons who may be affected by the project.

Malheur County Court
City of Ontario

L852 April 24, May 1

RECEIVED
JUN 15 1969
ENGINEER
COUNTY & CITY DIVISION

No 852

RECORD OF PROCEEDING

PUBLIC HEARING HELD IN ONTARIO, OREGON

ON MAY 28, 1969, AT THE HOUR OF 2:00 P.M.

-- VERDE DRIVE PROJECT --

HONORABLE ELLIS A. WHITE, MALHEUR COUNTY

COURT JUDGE, PRESIDING

RECEIVED
JUN 15 1969
ENGINEER
COUNTY & CITY DIVISION

VERDE DRIVE PROJECT
PUBLIC HEARING
Ontario, Ore.

Judge Ellis A. White, Malheur County Court Judge opened the meeting with the following comments: "Ladies and Gentlemen, the time is 2:00 p.m., Wednesday, May 28, 1969, which time has been set for the public hearing on the proposed Verde Drive project approximately one-half mile in length running North from 4th Avenue on Verde Drive, a county and city street in or near the City of Ontario in Malheur County.

In January, 1969, the Federal Highway Administration put into effect a revised Policy and Procedure Memorandum governing public hearings. This memorandum sets forth the rules under which we are conducting today's corridor-design hearing relating to this proposed Federal-aid Highway project. We are here to afford you the opportunity to express your opinions regarding the proposal.

Further, under the new Policy and Procedure Memorandum, you may make both oral and also written statements, and in addition have an additional ten days to submit written comments which will be made a part of the record of this hearing. Such written comments should be mailed to the County Courthouse or the City Hall.

This hearing, including all statements and comments, will be transcribed verbatim and sent to the State Highway Department for review. All testimony given at today's hearing will be evaulated to determine the socioeconomic impact and the feasibility of the proposal.

We will follow a schedule in the conduct of this meeting; first, an engineering description of the proposal will be presented;

next, a brief explanation of right of way procedures will be given; then, anyone wishing to make a statement will be given the opportunity to do so.

So that you may know those of us at the front and side of the room, I would like to introduce the following people: Mr. Cy Cox, Engineer in Charge of City-County Division of Oregon State Highway Department; Mr. Scott Coulter, Assistant Engineer for 5th State Highway Division from LaGrande (I might tell you Mr. Cox will be retiring as of June 30); also have Morgan Beck; Mrs. Dyer Bennett, Chairman of Ontario City Planning Commission; Mr. Mike Irons, Superintendent of Schools; C. Lloyd Caster, City Manager; Amel Maag, County Commissioner; Henry Esplin; Harry Smith City Councilman; and there are probably others here with us who perhaps should be introduced but we will proceed with the meeting at this time in as much as there will be a project explanation or description and I believe Mr. Coulter will give us that.

Mr. Coulter: The proposed project involves the improvement of the existing street or county road extending from N.W. 4th Avenue to S.W. 4th Avenue along Verde Drive. The proposed project will involve the necessary work to result in construction of a city street varying in width from 44 to 48 feet with curbs and gutters and asphaltic-concrete wearing surface. The project is proposed to be built in three steps. The first to be a contract involving the relocation of the irrigation facilities. The ditches that run now down Verde Drive from South to North - these would be placed in a pipeline eliminating thereby the open ditch. All irrigation waters would be carried in this pipeline from Arrata Way to N.W.

4th Avenue. The diversion point for existing ditches that flows out in Arrata Sub-Division would be changed from its existing point to near the intersection of N.W. 4th Avenue and Verde Drive. At this point a pump would be installed that would pump water from this point back into its ditch at a point easterly of the proposed installation. This pipeline would be designed to carry not only the water that currently flows down the irrigation ditch but would also function and would carry the storm drainage in the same pipeline. The second phase of the project would be performed by City forces and would involve the necessary grading work and the placing of a portion of the surfacing materials. This work would be performed by City forces and would not be let under contract. The third phase would be the balance of the surfacing materials, the construction of concrete curbs and gutters and the placing of an asphaltic-concrete surface. The third stage would be let at a later time and would be a Federal Aid Secondary Project Contract. I think this describes the project itself.

Judge White: Now we will have a brief explanation of the right of way from Mr. Castner.

Mr. Castner: I am Lloyd Castner, City Manager of the City of Ontario.

It is necessary to obtain a 60 foot right-of-way to accommodate the desired road width and to provide additional right-of-way for the necessary utilities and sidewalks if constructed. There are 20 parcels of property along the route which have a right-of-way width less than the desired 60 feet. No obstructions exist in the 60 foot right-of-way; no relocation will be required. All owners

of property have been contacted and several parcels have already been obtained. The City Council at its meeting on May 5th, 1969 adopted the following resolution. It passed by unanimous vote by members of the City Council present at that meeting.

"In accordance with Section 141, Chapter 1, Title 23, United States Code, the City of Ontario does hereby resolve and give the following assurances:

1. That every reasonable effort shall be made to acquire the real property by negotiation;

2. That the construction of projects shall be so scheduled that to the greatest extent practicable no person lawfully occupying the real property shall be required to move from his home, farm, or business location without at least 90 days' written notice from the State or political subdivision having responsibility for such acquisition; and

3. That it will be the policy of the City, before initiating negotiations for real property, to establish an amount which is believed to be just compensation, under the law of the State, and to make a prompt offer to acquire the property for the full amount so established."

Judge White: Thank you. Now at this time we have a number who have requested to be heard. Mr. Beck, as Mayor, do you have a statement?

Mayor Morgan Beck: Yes. My name is Morgan G. Beck. I am the Mayor of the City of Ontario, Oregon. I have served as Mayor since 1963. Prior to 1963, I served ten years as a member of the Ontario City Council.

For many years the City officials have been concerned about the flow of traffic on this section of Verde Drive. The road is important for a thoroughfare as it is used for that purpose and is a connector for the fast growing section of Ontario, Oregon, Highway

201 and downtown Ontario. However, the appropriate road width cannot be established on the raod because of a large irrigation ditch which parallels the road. The road cannot be widened without the covering of the irrigation ditch or the relocation of this ditch. Engineering studies have found it impractical to relocate the irrigation ditch. City officials have been working with the irrigation interests, school district, state and county officials for several years in an effort to improve traffic and safety conditions on Verde Drive. The suggested improvements on Verde Drive are the best method of improving the safety and traffic capacity of the street for traffic purposes.

Water and sewer lines are also being extended into the area affected and their extension has coordinated the suggested schedule of the Verde Drive Improvements. Private utility companies have been notified of the proposed improvements. Each of the local private utility companies has inspected the sites with City officials and all have made the necessary arrangements to relocate those facilities which will be in conflict with the proposed construction. These utilities will be relocated at no public cost because of provisions of the utility company's franchise with the City of Ontario. We are in concurrence with the proposed improvements of Verde Drive and I, as Mayor of the City of Ontario, urge you to have it accomplished at an early date.

Judge White: At this time I am going to ask Mr. Cy Cox to make a statement on this project or anything you might want to say. I think it might be pertinent at this time for you to mention the contents of this letter.

H. S. Cox: My name is H. S. Cox. I am the County-City Enginerr for State Highway Department in Salem. My division operates with the counties in an endeavor to bring these projects to contract. In other words whenever a county secondary road -- an application is received from the county for an improvement under the FAS system-- we actively cooperate the counties in an endeavor to get it to contract. Now, we do not suggest what the project will be. I wish to make it clear that all projects under this type of improvement are the suggestions of the local authorities. When an application is received, we will endeavor to bring that to a successful consummation, in other words completion. This project is not unusual. The FAS road does extend into the City of Ontario. Several years ago the Congress made it possible for these projects to be done in this fashion. Prior to that time I might add, it was against the law for cities of over 5,000 to have FAS projects within the City but since about 1964, I believe, the law has been changed and this is possible at this time. This particular project was requested by Malheur County Court and they have made arrangements with City of Ontario for cooperation with the County. We will actively endeavor to see that this comes to a conclusion.

Judge White: Thank you. Now, before proceeding further I note I had failed to carry out some of the provisions. I will go into this matter now before coming back to those who wish to be heard. Under the new Policy and Procedure Memorandum under "Right of Way Procedure", this comment is made. Any property which is required for the construction of a project, such as the one

being discussed today, will be appraised on the basis of "Market Value." Market Value is defined as the price a willing buyer would pay for property offered by a willing seller with neither party having any obligation to either buy or sell. To pay more than the Market Value of property would be unfair to the taxpayers who provide the monies for road improvements. To pay less than Market Value would be unfair to the property owner.

In accordance with the Federal-Aid Highway Act of 1968, the following assurances must be given:

1. That every reasonable effort will be made to acquire real property by negotiation.
2. That no person shall be required to move from his home, farm, or business location without at least 90 days' written notice.
3. That an amount will be established which is believed to be just compensation and a prompt offer will be made to acquire property for the full amount so established.

Now, the 1968 Federal-Aid Highway Act also liberalized the benefits available to persons who are displaced from their homes, farms, or business locations. And while this might not apply here I thought this information should be given. We are obligated, therefore, to provide relocation assistance to anyone who is displaced and required to move from his home, farm, or business location by Federal-Aid Highway programs. The Highway Department has published a brochure explaining the relocation assistance program. I understand Mr. Castner has these brochures at this time. (underlined portions are comments by Judge White).

Again, all of you who care to make comments or to speak for or against will be given that opportunity. I would again want to say to you that whatever remarks are made will be recorded . It will be reviewed and re-evaluated and if you do have and would like to make additional written comments you may do so within a ten-day period following this meeting. With that explanation, we have Mrs. Dyer Bennett, who is Chairman of the Ontario Planning Commission.

Mrs. Dyer Bennett: I am Mrs. Dyer Bennett, Chairwoman of the Ontario Planning Commission, I wish to speak on behalf of the proposed Verde Drive Improvement with special emphasis on local planning. The City of Ontario has adopted a comprehensive planning report entitled "Planning for Ontario." This report developes future uses based on population, land use, schools, parks and streets.

In planning for the future, it is necessary to develop and adopt a Land Use Plan. The report "Planning for Ontario" prepared for the City of Ontario and Ontario School District in 1964 provides basic information on population, land use, public facilities, and streets and presents for community consideration preliminary plans for the future development of Ontario. Population trends indicate that continuing growth here can be expected for at least the next 15 to 25 years. As the population increases there will be increased demand for streets, schools, parks and other public facilities. The extent to which these facilities are provided, in an orderly, economical manner will depend in part on what provisions are made by the city, county and school district for their location and development. The study was undertaken as part of the Ontario Urban

Planning Assistance Program. Funds for the project were provided by the City, Ontario School District and a grant from the United States Department of Housing and Urban Development. Technical assistance was provided by the Bureau of Municipal Research and Service at the University of Oregon. The suggested preliminary land use plan was submitted as part of the report. The plan recommends logical relationships and gives a general indication of the amount of land that will be needed for various urban purposes for the next 15 to 25 years. The report also suggests standards for future school and park development.

The report "Planning for Ontario" also indicated the development and adoption of a street or thoroughfare plan as an important step in planning for the future growth of Ontario. The street plan is one element of a comprehensive plan for the orderly development of the community. The street plan indicates the general location and design of future system of streets. It establishes the relationship between the various types of streets in the community. It is intended that the plan assist in reducing the adverse effects to growth and change to the community.

The preliminary street plan presented in the report is based on recent planning studies that have been conducted in Ontario. In general, the plan intended to facilitate easier and safer movement of vehicular traffic between the various parts of Ontario and to the regional road system. Major objectives of the plan were to provide more direct routes between the principal areas of traffic generation and attraction to provide for better circulation in and around downtown. The plan is based on the assumption that both the population

in the Ontario area and the use of motor vehicles will continue to grow and that this will mean an increase in local traffic. In the report streets were classified as arterial, collector and minor streets. Verde Drive was designated as a collector street. Collector streets furnish access to abutting property and serve as a connecting link between the arterial and minor streets. This would be designated to intercept traffic from minor streets and carry it to arterial streets. Verde Drive would connect local traffic, arterial and Oregon Highway 201 to Interstate 80N. The report expands the existing collector system to provide a network of through streets. Improvement of Verde Drive is consistent with local plans and the Ontario Planning Commission and I recommend its construction.

Judge White: I thank you. Mike Irons, Superintendent of Public Schools wishes to make a statement. We have a stenographer taking notes and those of you do not have a prepared statement we would urge you to speak slowly and clearly - that will be of valuable assistance to her if you will.

Mike Irons: The Board of Directors of School District 8C would like to support the proposed plans to acquire right-of-way and construction of the N.W. 4th Avenue-Arcata Way Section of Verde Drive, which borders the Aiken Elementary School on the west.

It has always been of paramount concern to the Board of Directors because of the health, welfare and safety of the school-age youngsters involved in traveling Verde Drive to and from school. Since 1957 when Aiken was opened, several school committees have been involved in seeking solutions to eradicate the safety hazards found along this road.

Presently, 103 youngsters travel the Verde Drive section with the following breakdown by grades: 1st, 16; 2nd, 21; 3rd, 15; 4th, 18; 5th, 18; and 6th, 15. It is quite apparent that the number of youngsters using this road will increase in the future as more residences are being built in this area yearly.

Judge White: Thank you. I notice Adam Focht of the North Board of Control, do you have a comment.

Mr. Adam Focht: No statement.

Judge White: I notice also Hal Henigson who is local counsel for North Board of Control, do you have a comment, Mr. Henigson?

Hal Henigson: I would rather wait until we get some more information on the subject.

Judge White: Are there others who would care to make a statement? We want you to feel free to. You may speak either for or against. This is the first public hearing of this nature that I have presided over. I do not see that there is a provision made for questions and answers. Is this true or not?

Mr. Coulter: Normally, there is no provision made. These should have been resolved ahead of time. If there are questions this could be entered into the written testimony.

Roy Brewer: I am Roy Brewer. I would like to ask question. We have several of our people here and the main thin we are interested in and which I have talked to Mr. B e c k and Mr. Caster is the future of moving our water. That is why we are here and of course I don't see any use for comment here - that is our main concern. The future of what will happen to the water we own. That is our

interest here - when you pump it who is going to pay for it and what's going to happen to it. That is our question.

Judge White: I am not prepared to answer that, Mr. Brewer, this is a matter that, as Mr. Coulter has said, perhaps should have been resolved prior to this public hearing.

Mr. H. S. Coulter: It might be pointed out that before construction of the project could be made since there are, as I understand it, two ditch companies involved in the proposed work that will be required - that there be an agreement between these ditch companies, Malheur County and of the City of Ontario before adjustment of these facilities could take place.

Judge White: So this will have to be done. Are there any other comments to be made?

Hal Henigson: Judge White, my name is Harold Henigson, I am from Nyssa and am attorney for the Owyhee Project North Board of Control and Owyhee Irrigation District. One of the questions I would like to have clarified was the remark made by Mayor Beck in which he stated the right of way would be 60 feet and what I want to know - will that 60 feet encompass the present 60 feet for this open ditch or the pipeline as it is intended?

Judge White: Are you in a position to answer?

Mayor Beck: If I understand the question correctly. Yes, without the width of the ditch there is not sufficient right of way for the street.

Hal Henigson: Will there be a paved surface over the pipeline as it is contemplated?

Mayor Beck: That is my understanding.

Judge White: That is my understanding.

Hal Henigson: As far as the project is concerned, while I cannot speak for Board of Directors of North Board of Control or Owyhee Irrigation District, somewhere there will have to be an arrangement made or an agreement whereby the position of the pump and maintenance of the pipeline will be provided inasmuch as the project and the right of way for area involved will not afford for repair matters or replacements of pipeline. It will have to be worked out on some satisfactory basis and I am sure will simply require a written agreement with responsible authorities so that any necessary work could be accomplsihed.

Judge White: Thank you.

Hal Henigson: And as far as water users are concrned as was indicated we are responsible as a project for delivery of water to them and whatever would be done would have to be done in a manner that would satisfactory to those individuals. The project wishes to cooperate with the city and county but will have to reserve whatever position it must maintain to deliver water.

Judge White: And we understand your position, yes, and are there other comments to be made insofar as this public hearing is concerned? .... I would again say to you that each and everyone of you have the right to make written comment within ten days following this 28th day of May and those comments should be made in written statement and sent to either the City Hall or County Courthouse in care of City Council or County Court. Again I want to stress is there other testimony you would care to offer

at this time. .... There being none, I declare this hearing official closed at 15 minutes of 3, and that completes the public hearing. I want to thank each and everyone one of you for coming out and for your interest.

CITY OF

Ontario

NOTED
H. S. COX

FROM THE OFFICE OF CITY MANAGER
Please Direct All Correspondence
On This Matter To The Above.

P.O. BOX 159 - ONTARIO, OREGON
97914

RECEIVED
JUN 15 1969
ENGINEER
COUNTY & CITY DIVISION

June 13, 1969

Hal

Mr. H. S. (Sy) Cox
City-County Division
Oregon State Highway Department
Salem, Oregon

Dear Mr. Cox:

Last week Albert Gaschler, City Engineer, and I reviewed with you the road design details of the Verde Drive FAS 23-103 Project. You requested further information on specific details. Enclosed you will find a drawing prepared by Mr. Gaschler of the pump station to be used to pump irrigation water from the 48 inch pipe on Verde Drive to an irrigation lateral immediately north of Aiken Elementary School. This design has been reviewed by representatives of the North Board of Control in Nyssa and appears to meet their requirements. The drawings should be self explanatory.

Also enclosed is a drawing of the pump intake design of the City's pump located at Verde Drive and Arcata Way. This pump is owned by the City of Ontario to serve irrigation water to a few users. The Design as submitted to your office meets the City of Ontario's requirements.

We reviewed with the North Board of Control the design of the drain line at its termination at N. W. 4th Avenue. They indicated that if the open ditch were excavated a distance of approximately 200 feet it would meet their requirements and reduce the possibility of silt occurring in the 48 inch pipe which is to be installed.

You requested we determine the purpose of a 10 inch pipe which is on the Hipp property at the west side of Verde Drive between Arcata Way and Idaho Avenue. This 10 inch line drains the adjoining property and should be connected to the 48 inch pipe or a catch basin.

We have reviewed the grade which the Highway Department has established on the 48 inch pipe. This review has indicated that the grades which you have established are adequate.

Turpin is working on this w/ Cox

NOTED
R H. PRANGE

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
DON HARWE

We reviewed with the North Board of Control that irrigation lines are in existance at S. W. 4th Avenue and Verde Drive. There are two irrigation lines in that intersection. Their office has reviewed the elevation of the existing pipe and the existing road surface. The North Board of Control has indicated to us that the subgrade which you have established will clear the concrete box and pipe already in existance.

We will be happy to answer any questions regarding the design of the pump station and pump intake which are enclosed.

Very truly yours,

C. Lloyd Castner

C. Lloyd Castner
City Manager

CLC:rmg

Encl:

cc: H. S. Coulter, LaGrande, Oregon
Frank E. Turpin, Final Design Engineer
Salem, Oregon

23

Oregon State Highway Commission
State Highway Building
Salem, Oregon

Attention: County and City Division

SUBJECT: Federal Aid Project No. FAS 23-103 —

Highway No. _____

Project Name N. W. 4th Avenue to Arcata Way
Section of Verde Drive FAS 23-103

Gentlemen:

1. We hereby certify that, to the best of our knowledge and belief, all rights-of-way or rights-of-entry for the above referred to Federal-aid project have been secured, except per attached letter.

2. We hereby certify that: (check one)

☒ There has been no displacement of persons from residences, farms, or businesses; or

☐ All displaced persons have been tendered all assistance possible and given all available information to assist in re-establishment in residence, farm, or business.

3. We hereby certify that the occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to Federal-aid project have been authorized by permit, franchise, or other approved procedure.

Dated at Vale, Oregon, this 11th day of June, 19 69.

Malheur County

Ellis A. White

I W Mead
Commissioner

Henry Conklin
Commissioner

RECEIVED
JUN 12 1969
ENGINEER
COUNTY & CITY DIVISION

Copy to:- John Oaks
Scott Coulter
R.N. Chase
C.G Swenson

(11/29/66)

NOTED
R. H. PRANGE

(12-7-66 150)

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
HAROLD REYNOLDSON

NOTED
DON HARWELL

The County of Malheur

VALE, OREGON

June 11, 1969

Oregon State Highway Department
Highway Building
Salem, Oregon 97310

RE: FAS 23-103
NW 4th Avenue to Arcata Way
Section of Verde Drive

The Malheur County Court hereby requests that the proposed project be narrowed to a 44-foot paved surface between Arcata Way and N. W. 4th Avenue. We request that the curb be placed 22 feet from the center line on the east side of Verde between Arcata Way and Idaho Avenue, and that the curb line continue to be 24 feet from the center line on the west side of Verde from Idaho Avenue to Arcata Way. We also request that the project continue as planned for a 68 feet-in-width right-of-way from Idaho Avenue to N. W. 4th Avenue.

Sincerely,

MALHEUR COUNTY

Ellis A White
Malheur County Judge

E W Mead
Malheur County Commissioner

Henry Esplin
Malheur County Commissioner

attach: (1)

encls: (2)

RECEIVED
JUN 12 1969
ENGINEER
COUNTY & CITY DIVISION

Copy to Henry 6-17-69.

NOTED
DON HARWELL

CITY OF Ontario

FROM THE OFFICE OF CITY MANAGER
Please Direct All Correspondence
On This Matter To The Above.

P.O. BOX 159 - ONTARIO, OREGON

June 6, 1969

RECEIVED
JUN 9 1969
MALHEUR COUN.

FAS 23-1-3

Judge Ellis White
Malheur County Court House
Vale, Oregon

Dear Judge White:

On May 9, 1967 the County-City Division of the Oregon State Highway Department notified the Malheur County Court that the FAS Project on Verde Drive between S. W. 4th Avenue and Malheur Drive was approved by the Bureau of Public Roads as requested by the Malheur County Court. Their approval included "reconstruction of Verde Drive by grading, blading, curbing and placing an asphaltic concrete wearing surface 48 feet between curbs."

Since that time they have been working with irrigation interest, property owners and other public agencies in an effort to proceed with construction.

Prior to the commencement of this project, Verde Drive in some locations was fifty feet in width. Sixty feet is necessary to construct a 48 foot paved surface. It was necessary to attempt to obtain the 5 feet of right-of-way in specific locations. Twenty parcels of property, 5 feet in width are needed to be obtained from owners of property where the right-of-way widths were insufficient. All necessary right-of-way has been obtained between N. W. 4th Avenue and Idaho Avenue. Nine parcels, 5 feet in width are yet to be obtained between Idaho Avenue and S. W. 4th Avenue.

We request that the Malheur County Court ask the Oregon State Highway Department that the proposed project be narrowed to a 44 foot paved surface between Arcata Way and S. W. 4th Avenue. We request that the curb be placed 22 feet from the center line on the east side of Verde between Arcata Way and Idaho Avenue, and that the curb line continue to be 24 feet from the center line on the west side of Verde from Idaho Avenue to Arcata Way. We also request that the project continue as planned for a 48 foot right-of-way

RECEIVED
JUN 12 1969
ENGINEER
COUNTY & CITY DIVISION

From Idaho Avenue to N. W. 4th Avenue.

We are also attaching the right-of-way certificate for this project. We ask that you sign and forward it to the Oregon State Highway Department.

Very truly yours,

C. Lloyd Gartner
City Manager

CLC:rmg

Encl:

NOTED
H. S. COX

May 20, 1969

Hon. Ellis White
Malheur County Judge
Courthouse
Vale, Oregon 97918

Dear Judge White:

It has recently come to my attention that rumors are circulating in your area that I have stated that if Verde Lane is constructed as proposed, then "the chances for a proposed by-pass of Ontario would be diminished."

I wish to take this opportunity to make it quite clear to the Malheur County Court, and any other groups or individuals, that this rumor is absolutely without foundation. As you know, this office exists only to aid the counties in bringing to contract those projects proposed by the county courts. Judgment as to the merits of a project are made entirely on the local level. Once a project is selected, this office and all of its personnel will make every effort to bring that project to contract and eventual construction, unless directed otherwise by the local authority.

I will be in Ontario May 28 to attend the hearing on Verde Lane, FAS 23-103. This project is presently scheduled for August 21 letting. It is my hope that we may see each other at the hearing.

Very truly yours,

NOTED
HAROLD
REYNOLDSON

H. S. Cox
County and City Engineer

HSC:mm

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
MANOR C. HOLMES

NOTED
DON HARWELL

RECEIVED
APR 24 1969
COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID S. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
PENDLETON
SU-23-103(1)
7309

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310
April 23, 1969

Mr. C. Lloyd Castner
City Manager
P.O. Box 159
Ontario, Oregon 97914

Dear Mr. Castner:

We appreciate receiving your letter of April 10 conveying the information on the public hearing for the Federal-aid project on Verde Drive, FAS 23-103.

Enclosed for your use in conducting your hearing is the following material:

Suggested Format (may be used by the hearing officer in the conduct of the hearing.)

Registration Cards (to be filled out by persons attending the hearing.)

Relocation Assistance Brochures (to be made available to anyone who may be relocated from his property.)

I suggest that you either call or write to the Division Office in La Grande and request someone who is familiar with the project to give the engineer's narrative describing the project.

The 1968 Federal Aid Highway Act requires local governments to give certain assurances in the acquisition of right of way for Federal-aid highway projects. Since the City of Ontario is acquiring the right of way for the Verde Drive project, will you please have the City adopt the enclosed resolution giving these assurances and return an approved copy to this office as soon as possible. By the adoption of this resolution and making it a part of the City's records, the City will comply with the Federal requirements not only for this project but for all future Federal-aid highway projects in the City of Ontario for which you might acquire right of way.

After the ten days have elapsed for receiving additional written statements, please send this office a typewritten verbatim transcript of the formal public hearing. In addition, we will also require the following:

1. Copies of all notices, advertisements, newspaper articles, and correspondence in connection with the hearing.

2. A statement giving time, date, and place of any informal meetings or informational hearings held prior to the time of the formal hearing.

3. A statement that the City has studied and evaluated the testimony given at the public hearing; that it has considered the social, economic, and environmental effects of the location and design of the project; and that the City finds that the project is compatible to the City's planned arterial system. If possible, please send copies of any Traffic Surveys or Planning Studies made by or for the City of Ontario with reference to land use and street systems.

If you have any questions or need further information or clarification, please call or write.

Very truly yours,

R. H. Prange
Field Engineer
County and City Division

RHPjeb

Enc.
cc F. B. Klabee
L. H. Young
D. J. Barbee
A. F. Parsen

RECEIVED
APR 23 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RESOLUTION

In accordance with Section 141, Chapter 1, Title 23, United States Code, the City of _____ does hereby resolve and give the following assurances:

1) that every reasonable effort shall be made to acquire the real property by negotiation;

2) that the construction of projects shall be so scheduled that to the greatest extent practicable no person lawfully occupying the real property shall be required to move from his home, farm, or business location without at least 90 days' written notice from the State or political subdivision having responsibility for such acquisition; and

3) that it will be the policy of the City, before initiating negotiations for real property, to establish an amount which is believed to be just compensation, under the law of the State, and to make a prompt offer to acquire the property for the full amount so established.

SUGGESTED FORMAT

CORRIDOR-DESIGN HEARING
FAS-C PROJECTS

OPENING STATEMENTS

Ladies and gentlemen, the time is _____ a.m./p.m., _____ (day), _____ (date), which time has been set for the public hearing on the _____ Section of _____ County Road/city street in/near the City of _____, _____ County.

In January, 1969, the Federal Highway Administration put into effect a revised Policy and Procedure Memorandum governing public hearings. This memorandum sets forth the rules under which we are conducting today's corridor-design hearing relating to this proposed Federal-aid Highway project. We are here to afford you the opportunity to express your opinions regarding the proposal.

Further, under the new Policy and Procedure Memorandum, you may make both oral and written statements, and in addition anyone, regardless of whether he has or has not made a statement today, will have an additional ten days to submit written comments which will be made a part of the record of this hearing. Such written comments should be mailed to the County Courthouse/City Hall.

This hearing, including all statements and comments, will be transcribed verbatim and sent to the State Highway Department for review. All testimony given at today's hearing will be evaluated to determine the socio-economic impact and the feasibility of the proposal.

We will follow a schedule in the conduct of this hearing: first, an engineering description of the proposal will be presented; next, a brief explanation of right of way procedures will be given; then, everyone wishing to make a statement will be given the opportunity to do so.

So that you may know those of us at the front of the room, I will introduce the following people: names and titles

ENGINEER'S DESCRIPTION

The proposal will now be described by: Name Title (Highway Department personnel should be present with a written narrative describing the project.)

RIGHT OF WAY PROCEDURES

Any property which is required for the construction of a project, such as the one being discussed today, will be appraised on the basis of "Market Value." Market Value is defined as the price a willing buyer would pay for property offered by a willing seller with neither party having any obligation to either buy or sell. To pay more than the Market Value of property would be unfair to the taxpayers who provide the monies for road improvements. To pay less than Market Value would be unfair to the property owner.

In accordance with the Federal-Aid Highway Act of 1968, the following assurances must be given:

1. That every reasonable effort will be made to acquire real property by negotiation.

2. That no person shall be required to move from his home, farm, or business location without at least 90 days' written notice.

3. That an amount will be established which is believed to be just compensation and a prompt offer will be made to acquire property for the full amount so established.

The 1968 Federal-Aid Highway Act also liberalized the benefits available to persons who are displaced from their homes, farms, or business locations. We are obligated, therefore, to provide relocation assistance to anyone who is displaced and required to move from his home, farm, or business location by Federal-aid Highway programs. The Highway Department has published a brochure explaining the relocation assistance program. Copies of the brochure are available at this meeting.

TESTIMONY

At this time statements will be taken for or against the proposal, and I want to again assure you that the entire proceedings of today's hearing are being recorded and will be reviewed and evaluated. Once again I would like to remind you that we will accept additional written comments for ten days after the close of the hearing. We ask you to confine your remarks to the relative merits of the proposal. Problems of personal concern may be discussed and perhaps resolved after the close of the hearing.

(Now call on elected officials such as legislators, county officials and city officials; heads of governmental agencies, chambers of commerce, utilities, and corporations; and finally all interested persons.)

FINAL STATEMENT

Has everyone had a chance to give his or her comments on the proposal? Is anyone present who might have said "no" on a card but would like to change his mind and make remarks at this time? (Pause) For the last time, is there anyone present who wishes to make a statement? (Pause) There being no further testimony, I thank all of you for being present today, and now declare this hearing officially closed at _____p.m./a.m.

CITY OF Ontario

FROM THE OFFICE OF CITY MANAGER
Please Direct All Correspondence
On This Matter To The Above.

P.O. BOX 159 - ONTARIO, OREGON
97914

April 10, 1969

H. S. Cox
City-County Division
Oregon State Highway Department
Salem, Oregon

Dear Sir:

Judge White has given me the information which you recently sent to him regarding the required hearings for the N. W. 4th Avenue-Arcata Way Section of the Verde Drive, FAS 23-103 Project. From the information, the following schedule has been developed. We have decided to conduct a public hearing on this proposed project rather than depend upon a request for the public hearing.

First notice of public hearing - April 24th

Second notice of public hearing - May 19th

5-28-69 Hearing → Public Hearing, Meeting Room, Malheur County Library, Ontario Oregon - May 28th

Transcript of oral statements of the hearing submitted to the City-County Division - June 25th

Right-of-way obtained - July 18th

Tentative bid opening - August 21st

We hope this schedule meets with your approval and copies of the correspondence with the Ontario Argus Observer are attached for your information.

We would appreciate a representative of the State Highway Department appearing at the hearing.

Very truly yours,

C. Lloyd Castner

C. Lloyd Castner
City Manager

NOTED
HAROLD REYNOLDSON

CLC:rmg

Copy to B.P.R.

NOTED
R. H. BRANGE

RECEIVED
APR 14 1969
ENGINEER
COUNTY & CITY DIVISION

NOTED

NAME OF PROJECT N. W. 4th Avenue-Arcata Way Section Verde Drive, FAS 23-103

COUNTY Malheur

FAS 23-103

		DATE
1	Hearing maps to county.	
2	First notice to papers offering hearing. (Copy to County-City Division)	
3	Second notice to papers offering hearing. (7 days from first notice) (Copy to County-City Division)	
4	Deadline for hearing request, from Court. (Not less than 14 days from item 3) (Request to County-City Division)	
	IF HEARING IS REQUESTED:	
5	First notice of hearing to papers. (Must be 30 to 40 days before hearing) (Copy to County-City Division)	Apr 24
6	Second notice of hearing to papers. (Must be 5 to 12 days before hearing) (Copy to County-City Division)	May 19
7	Schedule hearing. (Copy to County-City Division)	May 28, 1969
8	Final acceptance of hearing testimony. (Minimum of 10 days after public hearing)	June 6, 1969
9	Submit hearing transcript. (Maximum of 30 days from date of hearing)	June 25, 1969

RECEIVED
APR 14 1969
ENGINEER
COUNTY & CITY DIVISION

April 10, 1969

Fran McLean

% Ontario Argus Observer
310 S. W. 4th Ave.
Ontario, Oregon

Dear Fran:

Attached is the City of Ontario and Malheur County Court's Notice to interested parties pertaining to its proposed plans for future right-of-way acquisition and construction on N. W. 4th Avenue-Arcata Way Section of Verde Drive, FAS 23-103 project. The proposed routing is approximately shown on the attached map.

Please run this notice as a paid legal advertisement in your classified section under the heading Legal Notices on April 24, 1969, and May 19, 1969. Please submit your billing in triplicate to the City of Ontario and attach one copy of an affidavit of publication for each date of publication.

This notice will be of interest to those who are affected by the plans, some of whom may not read your classified colums. It would be appreciated, therefore, if you would print a news item in the proper place in your newspaper advertising where the local notice may be read. It will be satisfactory to print the notice in one column. If any questions arise we will be glad to advise you.

Very truly yours,

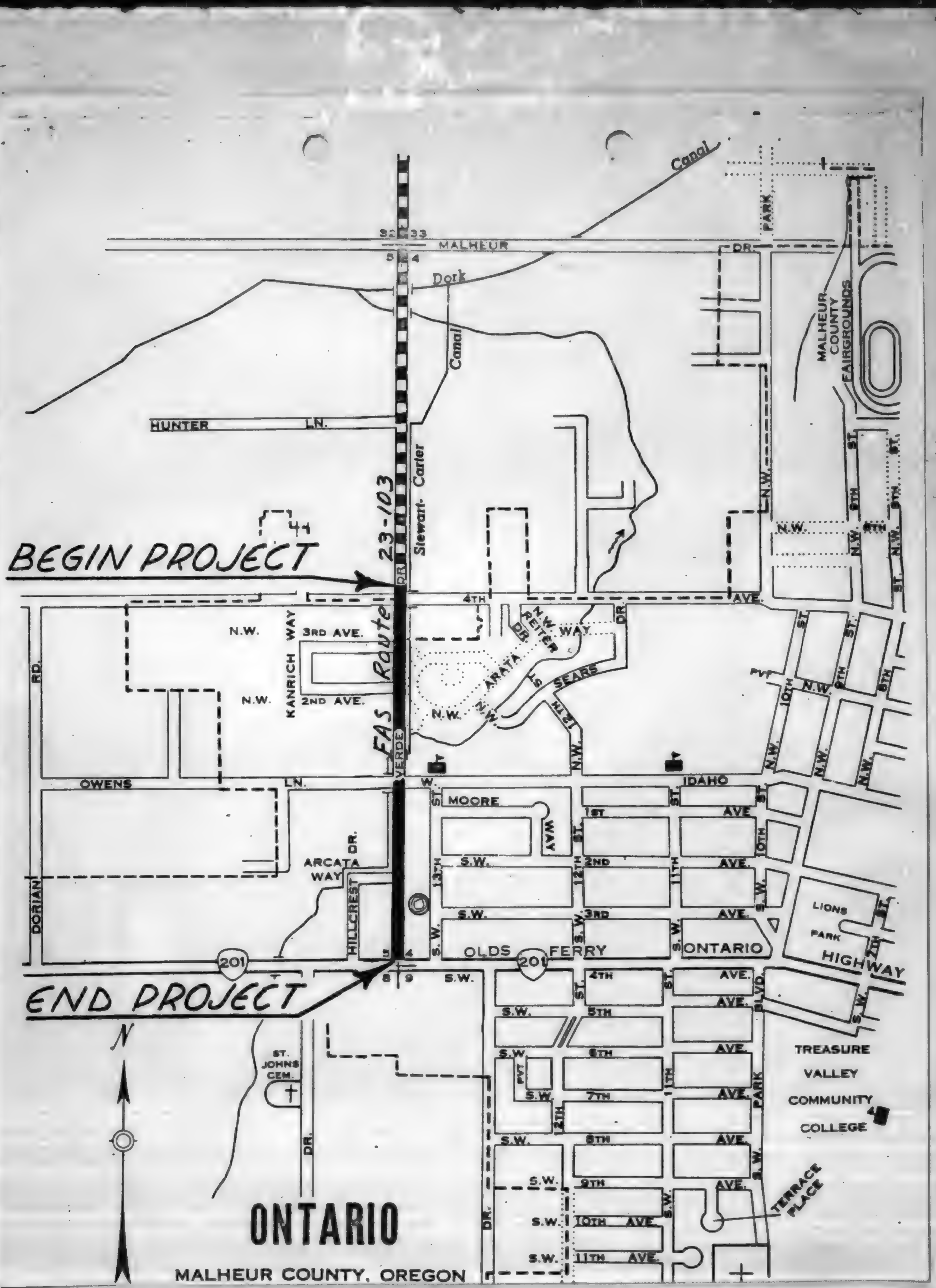
C. Lloyd Castner
City Manager

RECEIVED
APR 14 1969
ENGINEER
COUNTY & CITY DIVISION

CLC:rmg

Encl:

cc: H. S. Cox
Oregon State Highway Dept.
Salem, Oregon


BEGIN PROJECT
END PROJECT
23-103
Stewart-Carter Canal
Canal
Dork
MALHEUR DR.
HUNTER LN.
PARK
MALHEUR COUNTY FAIRGROUNDS
N.W. 5TH ST.
N.W. 4TH AVE.
N.W. 3RD AVE.
N.W. 2ND AVE.
KANRICH WAY
REITER WAY
ARATA ST.
SEARS
N.W. 12TH
PVT
N.W. 10TH
N.W. 9TH
N.W. 8TH
N.W. 6TH
RD.
OWENS LN.
DORIAN
ARCATA WAY DR.
HILLCREST
MOORE WAY
S.W. 13TH ST.
S.W. 12TH ST.
S.W. 11TH ST.
S.W. 10TH ST.
1ST AVE.
2ND AVE.
3RD AVE.
4TH AVE.
5TH AVE.
6TH AVE.
7TH AVE.
8TH AVE.
9TH AVE.
10TH AVE.
11TH AVE.
IDAHO
OLDS FERRY
ONTARIO
201
LIONS PARK
HIGHWAY
TREASURE VALLEY COMMUNITY COLLEGE
PARK BLVD.
TERRACE PLACE
ST. JOHNS CEM.
N
ONTARIO
MALHEUR COUNTY, OREGON

April 10, 1969

Idaho Power Co.
Ontario, Oregon

Gentlemen:

The Utilities Division of the Oregon State Highway Department recently notified you of proposed plans for the improvement of Verde Drive from N. W. 4th Avenue to S. W. 4th Avenue in Ontario. These improvements are scheduled for bids on August 21, 1969. This project is in co-operation with Malheur County and the City of Ontario. Bids are being called by the State Highway Department. The Highway Department notified you of any utilities which may be in conflict with the proposed construction. It is hoped that utilities in conflict with the proposed construction are at a minimum but it may be necessary to relocate some facilities.

The City of Ontario is now calling for bids on April 21, 1969 for sewers along the same section of highway. This construction may also require the relocation of facilities. Provision of your franchise with the City of Ontario requires utilities to be relocated by the utilities upon the request of the City of Ontario. Because we are a party to both contracts you are expected to relocate any conflicting utilities with either project at no public cost. Your facilities should be relocated for both projects in the near future.

Very truly yours,

C. Lloyd Gaetner
City Manager

CLC:mg

cc: Walter E. Gillespie, County Engineer, Vale, Oregon
City-County Division, Oregon State Highway Dept. Salem, Oregon
T. W. Litchfield, Utilities Liaison Engineer, Oregon State Highway Department, Salem, Oregon

April 10, 1969

Cascade Natural Gas Company
329 S. Oregon Street
Ontario, Oregon

Gentlemen:

The Utilities Division of the Oregon State Highway Department recently notified you of proposed plans for the improvement of Verde Drive from N. W. 4th Avenue to S. W. 4th Avenue in Ontario. These improvements are scheduled for bids on August 21, 1969. This project is in co-operation with Malheur County and the City of Ontario. Bids are being called by the State Highway Department. The Highway Department notified you of any utilities which may be in conflict with the proposed construction. It is hoped that utilities in conflict with the proposed construction are at a minimum but it may be necessary to relocate some facilities.

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Very truly yours,

C. Lloyd Castner

C. Lloyd Castner
City Manager

CLC:rmg

cc: Walter E. Gillespie, County Engineer, Vale, Oregon
City-County Division, Oregon State Highway Dept., Salem Oregon
T. W. Litchfield, Utilities Liaison Engineer, Oregon State Highway Department, Salem, Oregon

RECEIVED
APR 14 1969
ENGINEER
COUNTY & CITY DIVISION

April 10, 1969

Malheur Home Telephone Company
Ontario, Oregon

Gentlemen:

The Utilities Division of the Oregon State Highway Department recently notified you of proposed plans for the improvement of Verde Drive from N. W. 4th Avenue to S. W. 4th Avenue in Ontario. These improvements are scheduled for bids on August 21, 1969. This project is in co-operation with Malheur County and the City of Ontario. Bids are being called by the State Highway Department. The Highway Department notified you of any utilities which may be in conflict with the proposed construction. It is hoped that utilities in conflict with the proposed construction are at a minimum but it may be necessary to relocate some facilities.

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Very truly yours,

C Lloyd Castner

C. Lloyd Castner
City Manager

CLC:rmg

cc: Walter E. Gillespie, County Engineer, Vale, Oregon
City-County Division, Oregon State Highway Dept., Salem, Oregon
T. W. Litchfield, Utilities Liaison Engineer, Oregon State Highway Department, Salem, Oregon

RECEIVED
APR 14 1969
ENGINEER
COUNTY & CITY DIVISION

Malheur Co.
FHS 23-103

NOTED
H. S. COX

January 31, 1969

Mr. A. F. Parson
Division Engineer
Oregon State Highway Department
P.O. Box 850
LaGrande, Oregon 97850

Dear Mr. Parson:

Several weeks ago Scott Coulter of your office and I attended a meeting of the North Board of Control regarding the Verde Drive FAS Project. At that meeting the design of the project was reviewed with the representatives of the irrigation district. General consensus of the proposed design was reached with some exceptions. There was concern over the disposition of the drainage from the catch basins and the uncertainty of the present irrigation line on the Hipps property on the west side of Verde between Arcata Way and Idaho Avenue.

Representatives of the North Board of Control informed me that catch basins on Verde Drive would be permitted to be drained into the large 48 inch irrigation line and that the irrigation water in question on the Hipps property continues to be needed for irrigation purposes.

Very truly yours,

C. Lloyd Coulter

C. Lloyd Coulter
City Superintendent

NOTED
HAROLD
REYNOLDSON

CLC:rwg

cc: H. S. Cox
Oregon State Highway Department
Salem, Oregon

North Board of Control
Nyssa, Oregon

NOTED
MAINOR C. HOLMES

Tommy Thompson, Resident Engineer
Oregon State Highway Department
Ontario, Oregon

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
DON HARWELL

The County of Malheur

NOTED
H. S. COX

VALE, OREGON

January 10, 1969

Mr. H. S. Cox, Engineer
City-County Division
Oregon State Highway Department
Highway Building
Salem, Oregon 97310

Dear Si:

It appears that problems concerning Verde Drive will not be resolved in time to permit construction of the first phase prior to the 1969 Irrigation Season, therefore may we request that approximate time of bidding on the project be extended until late August or early September, 1969.

OK
#7 re: 8-21-69

Very truly yours,

MALHEUR COUNTY COURT

Ellis A. White

By: Ellis A. White
Malheur County Judge

RECEIVED
JAN 13 1969
ENGINEER
COUNTY & CITY DIVISION

Copy to:- A. F. Parson
D. J. Barbee
F. D. Morgan
C. G. Swenson
T. W. Litchfield

NOTED
HAROLD
REYNOLDSON

NOTED
P. B. Arensmeier

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
MANOR C. HOLMES

NOTED
DON HARWELL

CITY OF Ontario...

FROM THE OFFICE OF CITY SUPERINTENDENT
Please Direct All Correspondence
On This Matter To The Above

ONTARIO, OREGON
97914

November 29, 1968

NOTED
H. S. COX

RECEIVED
DEC 2 1968
ENGINEER
COUNTY & CITY DIVISION

H. S. (Sy) Cox
City-County Division
Oregon State Highway Department
Salem, Oregon

Dear Mr. Cox:

Thank you for recently supplying the City of Ontario with the preliminary plans of the Verde Drive FAS 23-103 Malheur County Project. The preliminary plans which were submitted to me indicate that there were some questions regarding the irrigation line. I hope that I can answer some of those questions.

The present bridge structure near Idaho Avenue and Owens Lane is a bridge over the existing ditch. We would suggest that the bridge be removed upon installation of the culvert.

The pump house located in the center of the right-of-way of Arcata Way is a City facility to pump irrigation water to a storage tank near Verde Drive. It is anticipated that the pump house will be eliminated in the foreseeable future because the irrigation system will be discontinued. We would suggest, therefore, that the pump house continue to be located at its present location and the City of Ontario will properly barricade it from the traffic flow which exists on Arcata Way. It is not anticipated that Arcata Way will be surfaced, curbed or guttered before the pump house is removed. It is presently a graveled road used for residential purposes.

On the preliminary drawings you questioned the length of pipe to be installed parallel to Arcata Way. We would hope that you could justify placing the pipe in the ditch to the maximum distance even if it meant that the pipe could be placed under a FAS Program to S. W. 4th Avenue. We will be happy with what can be justified.

Very truly yours,

C. Lloyd Castner

C. Lloyd Castner
City Superintendent

NOTED
HAROLD REYNOLDSON

CLC:rmg
Copy to: Frank Terpin (design)

NOTED
RICHARD UNREIN

NOTED
P. E. Arensmeier

NOTED
MANOR C. HOLMES

NOTED
DON HARWELL

FORM B-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

NOTED
H. S. COX

Salem, Oregon
November 29, 1968

SUBJECT: Reimbursement for Irrigation District Canal on County Road Right of Way - City of Ontario

To: Harold Reynoldson
County-City Department

B u i l d i n g

We have checked the land on which the county road and irrigation canal are located and find that it was all patented subsequent to 1890 and, therefore, was subject to a statutory reservation for "...a right of way thereon for ditches or canals constructed by the authority of the United States".

Inasmuch as this canal was constructed by the authority of the United States, it is my opinion that even though it is on county road right of way, it is there pursuant to the statutory reservation by the Federal Government. Therefore, it has a superior right to that of the county in its county road.

On the basis of the above statements, it is my opinion that any work on this canal that is necessitated on this road project would be the responsibility of the agency (State or county) doing the construction work.

JACK L. SOLLIS
Staff Attorney

JLS:phm

cc: G. E. Rohde
F. C. McKinney
T. W. Litchfield

NOTED
HAROLD REYNOLDSON

RECEIVED
DEC 2 1968
ENGINEER
COUNTY & CITY DIVISION

NOTED
P. B. Arentsen

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

NOTED
DON HARWELL

FORM E-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 24, 1968

SUBJECT: Government's interest in Right of Way

To:

Tony Viducich
Staff Attorney
B u i l d i n g

Attached please find a copy of a Right of Way Notice from the Federal Government.

We have a problem over all of Verde Drive in Ontario, in that the Irrigation District has a pipe line on county road right of way and there is a dispute whether they should be reimbursed for the relocation of this pipe line.

It is my opinion, after reviewing this Right of Way Notice, that if the county road is located on land that was patented prior to 1888, the Irrigation District would not have any right to be there, but if the county road was built on land patented after 1888, the easement that the county may have condemned over the property would be subject to the provisions of the Federal Statute set out in the Right of Way Notice.

I would appreciate your consideration of this matter and advice as to whether or not you agree with my views.

Jack L. Sollis

JACK L. SOLLIS
Staff Attorney

JLS:rh
Encl.

Form 7-263
(July 1941)

Jack
Here is a copy of the act I was asking you about concerning Verde Drive in Ontario
Wal R
Ext 1067

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

_____ IRRIGATION PROJECT

RIGHT OF WAY NOTICE

_____
(Date)

_____

_____

It is understood that you have an interest in the land described as _____, Section _____, T. _____, R. _____, M. _____. The United States has an interest in the said land, because the entry, which is the basis of your title, was made after October 2, 1888, and the land is accordingly subject to ditch or canal right of way reserved for the United States under the following provision of law:

"That in all patents for lands hereafter taken up under any of the land laws of the United States or on entries or claims validated by this act west of the one hundredth meridian, it shall be expressed that there is reserved from the lands in said patent described a right of way thereon for ditches or canals constructed by the authority of the United States." (Act of Aug. 30, 1890, 26 Stat. 391.)

Under the act of June 17, 1902 (32 Stat. 388), and other acts of Congress, the United States is advancing large sums of money for irrigation work in the West, creating much larger values in the lands benefited. Operations have reached the point where such work calls for the use of the right of way reserved to the United States across the land described above. The purpose of this letter is to notify you and any others interested in the land that the United States is about to utilize its right of way across the land. If desired, the project office will be glad to answer questions or give more definite information concerning the location of the proposed right of way.

Very respectfully,

U. S. GOVERNMENT PRINTING OFFICE 16—44754-1

NORTH BOARD OF CONTROL
Owyhee Project

NYSSA, OREGON

17 SOUTH FIRST STREET

PHONE FRANKLIN 2-3340

November 13, 1968

Morgan	Peate E
Decker	Morelock
Bond	Trout
Barbee 11-1428	Scott
Walker	Wills
Glenn	1 Litchfield 4
Swan	Olson

Mr. F. D. Morgan
Construction Engineer
State Highway Department
Salem, Oregon 97310

Dear Mr. Morgan:

Reference is made to your letter of August 22, 1968, to Mr. R. H. Moore of Bureau of Reclamation, Boise, Idaho, relative to the justification of construction of the underpass of Interstate Highway, North of Ontario, in the SE¼SW¼ of Section 20, Township 17 S., Range 47 E., W.M.

The underpass is used approximately 1500 times per year by heavy and light equipment, as an access route from our maintenance camp on the east side of the highway to serve some 90 miles of canals and laterals lying on the west side of the highway. A number of these moves are emergency in nature resulting from small washouts when the ditches are full of water. Many of these washouts can be fixed in this manner before we would be able to obtain a tractor trailer to move the equipment.

All equipment stationed at our Dead Ox headquarters, such as heavy equipment, spray rigs, dump trucks and pick-ups uses the underpass going to and from work. During the maintenance season approximately 3,000 cubic yards of gravel is hauled each year from the gravel pit. These trucks loaded with gravel, who not only prefer this route since it is shorter, but also saves the steep climb onto the overpass.

Not only our Irrigation District would be effected by not having this underpass, the Maintenance Shop of Road District #3 of Malheur County is located in this area and they also use the underpass as an access route to the county roads lying on the west side of the highway.

The United States Bureau of Reclamation constructed the Owyhee Project which was substantially completed in 1938. On January 1, 1952, it turned the project over to the waterusers for operation and maintenance but retained control to all rights-of-way and lands reserved for project use. One of the conditions required by the Bureau of Reclamation before crossing this particular tract of land was construction of the underpass to facilitate project operations. There is as much need for the underpass today as there was at the time of the original agreement.

Yours very truly,

Adam E. Focht

Adam E. Focht
Manager

AEF/md

RECEIVED
NOV 29 1968
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

91-33-13(1)
HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171
1309

NOTED
R. L. PORTER

November 27, 1968

Yturri, O'Kief, Cox & Burnham
Attorneys at Law
Yturri Building
Ontario, Oregon 97914

Re: Ontario-Verde Drive
F.A.S. project

Attention: Mr. Anthony Yturri

Dear Tony:

It has been necessary to take sometime to delve into the matters mentioned in your letter of November 18, 1968 relative to the above mentioned proposed project. I believe I now have the facts and background to reply.

From what I have been able to gather there has been a communications gap among the principals such as usually exists when the parties to a matter discuss what their several attorneys have advised them. At any rate Mr. Sellis has in no way questioned the eligibility of the project as to whether the piping and covering of the ditch should be an essential part of the construction.

Apparently the question submitted to him arose out of the existence of the canal or ditch within the highway right of way and whether the public (city, state or federal) is legally obligated to pay the cost of its relocation or reconstruction in improving the right of way for highway purposes. As you know, various such facilities are found in the right of way under permit, or other legal obligation, to relocate or stand the extra cost of the highway improvement caused by its existence in the right of way. The Act of 1890 came into the picture inasmuch as it required patents thereafter issued by the federal land office to contain a reservation for irrigation facilities.

Mr. Sollis has informed me that his investigation of the history of the ditch in question indicates it was constructed by the Bureau of Reclamation under the reservation clause mentioned which was inserted in the patents to the land over which the ditch exists. Mr. Sollis has advised the department officials of the results of his investigation which should clear this feature insofar as there was a question whether the highway authorities would be legally obligated to undertake the cost of the improvement. Affirmative determination must be made by the state in such matters before the Bureau of Public Roads will participate in the cost.

I have discussed this matter with Mr. Porter and informed him that there is no reason the parties cannot proceed in the normal manner of working up an FAS project. As I understand discussions are in progress between representatives of our County-City Relations Division and the City towards that end.

I hope I have cleared any misunderstanding to your satisfaction. Should there be further I can do in this regard please let me know.

Very truly yours,

C. E. ROHDE
Chief Counsel

CER:hg

cc - Mr. R. L. Porter
Mr. H. S. Cox
Mr. T. W. Litchfield
Mr. Jack Sollis

RECEIVED
NOV 29 1968
OFFICE OF
STATE HIGHWAY ENGINEER

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
Central Snake Projects Office
214 Broadway Ave.
Box 7504, Boise, Idaho 83707

IN REPLY
REFER TO:

RECEIVED
NOV 26 1968
LEGAL & RIGHT OF WAY

November 25, 1968

Mr. Jack Sollis
State Highway Building
Salem, Oregon 97310

Dear Mr. Sollis

In response to your phone call last Friday, enclosed is a copy of portions of the Earthwork Specifications as issued for enlarging and for new construction of the Advancement Lateral (Stations 0+00 to 281+00 End) and Advancement Wasteway (Stations 0+00 to 12+78 End). The Advancement Lateral is also designated in the specifications as three sub-laterals as follows:

Station 0+00 to 130+00, Owyhee Lateral (Enlarged only)
Station 130+00 to 256+30, Stewart-Carter Lateral (Enlarged only)
Station 256+30 to 281+00, North Advancement Lateral (New construction)

The earthwork was awarded to J. A. Terteling & Sons under authority of the "Federal Emergency Administration of Public Works Projects."

The section designated as the North Advancement Lateral was the only new construction and rights-of-way were reserved under the Act of 1890. Article 4 of the General Conditions of the Specifications stipulated the Government would provide the necessary rights-of-way.

The location map #B-89 and the profile & sections sheet #P-367 should give you additional required information. We hope the above meets your requirements for showing our authority to construct and that we had adequate and proper rights-of-way.

Sincerely,

D. W. Applgate

Project Superintendent

Enclosures (5)

Copy to: Judge Ellis A. White, Vale, Oregon
Mgr., North Board of Control, Nyssa, Oregon
(Both w/o enclosures)

Reynoldson.

YTURRI, O'KIEF, COX & BURNHAM
ATTORNEYS AT LAW
YTURRI BUILDING
ONTARIO, OREGON 97914

AREA CODE 503
889-5368

ANTHONY YTURRI
JOHN C. O'KIEF
JAMES A. COX
CARL BURNHAM, JR.

November 18, 1968

RECEIVED
NOV 19 1968
LEGAL & RIGHT OF WAY

NOTED
R. L. PORTER

Mr. George Rhode
Chief Counsel, State Highway Department
State Highway Building
Salem, Oregon 97310

Re: Ontario - Verde Drive Project

Dear George:

The City Superintendent of Ontario has just called my attention to the fact that apparently the Highway Department is raising some question with respect to eligibility of the Verde Drive Project for participation in State and Federal Funds under the F. A. S. Program.

Apparently someone in your legal section has referred to the Act of August 30, 1890, 26 STAT book 391 as authority for the question presented.

I can certainly see no reason or justification for questioning the eligibility of this project. Verde Drive is one of the streets in the western section of Ontario. It runs in a north-south direction and after leaving the city limits proceeds in a northerly and then eventually northeasterly direction and joins the Inter-State at the North Ontario Enterchange.

Apparently, the question is posed by reason of the fact that there exists adjacent to Verde Drive an open ditch. The project with a very minor exception is all within the city limits of Ontario. This open ditch adjacent to Verde Drive has for many years constituted and now constitutes a serious hazard to vehicles being operated on this street. As a part of the construction program, the project calls for placement of a pipeline in the ditch. The pipe, of course, will be covered and the road will extend over the covered ditch thereby providing a vital safety factor to traffic utilizing the street.

I am not specifically advised as to the possible objection being raised, but certainly the use of funds for piping and covering the ditch are as much a part of the construction program as the

laying of the asphalt itself. In fact, it is an essential ingredient of the construction project. The Bureau of Public Roads in other instances has never raised objections to use of federal funds when a safety factor is incorporated into the project since the laying of the asphalt and covering of the ditch are both closely related to the project for which the funds are being used. In fact, the Bureau is not presently raising any such objection. My understanding is that your legal department, while it has not definitely stated that objection can or will be raised, is considering the possibility. Frankly, George, I cannot understand how this position can be taken by the State particularly when State, Federal and other funds are constantly used for guard rails and numerous other type of safety facilities which do not constitute actual asphalt, gravel or other ingredients used in construction of the road per se.

I believe that Mr. Sollis of your office is considering this matter. My only purpose is to provide you with my views on the same in the hope that you will discuss the matter with Mr. Sollis before any final determination is made as to the eligibility of this project for federal and state funds. Personally, I can see no reason for any objection as such use would certainly not constitute a departure from previously long utilized procedures of the Highway Department.

Sincerely yours,

YTURRI, O'KIEF, COX & BURNHAM

by Anthony Yturri

AY:blw

cc: City of Ontario

Specifications No. 513-D

UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

- - - - - -

Schedule, Specifications and Drawings

- - - - - -

EARTHWORK

ADVANCEMENT LATERAL - (STA. 0+00 to STA. 281+00)

AND

ADVANCEMENT WASTEWAY

- - - - - -

MITCHELL BUTTE DIVISION

OWYHEE PROJECT, OREGON-IDAHO

(Federal Emergency Administration of Public Works Project)

Bids will be received at the office of the Bureau of Reclamation

Ontario, Oregon, until 10 a.m., February 28, 1936.

SPECIFICATIONS

GENERAL CONDITIONS

1. PERFORMANCE BOND. Unless another sum is specified at invitation for bids, the contractor shall furnish bond in an amount not less than 20 per cent of the estimated aggregate payments to be made under the contract; Bonds in amounts of $1,000 or less will be made in multiples of $100; in amounts exceeding $1,000 but not exceeding $5,000, in multiples of $500; in amounts exceeding $5,000, in multiples of $1,000; PROVIDED, That the amount of the bond shall be fixed by the contracting officer at the lowest sum that fulfills all conditions of the contract.

2. MONGOLIAN LABOR PROHIBITED. Pursuant to Section 4 of the act of June 17, 1902 (32 Stat. 388, 389), no Mongolian labor shall be employed under this contract.

3. CLIMATIC CONDITIONS. The contracting officer may order the contractor to suspend any work that may be subject to damage by climatic conditions.

4. RIGHTS OF WAY. The site for the installation of machinery or the right of way for the works to be constructed under this contract and for necessary borrow pits, channels, spoil banks, ditches, roads, etc., will be provided by the Government.

5. QUANTITIES And UNIT PRICES. The quantities noted in the schedules are approximations for comparing bids, and no claim shall be made against the Government for excess or deficiency therein, actual or relative. Payment at the prices agreed upon will be in full for the completed work and will cover materials, supplies, labor, tools, machinery, and all other expenditures incident to satisfactory compliance with the contract, unless otherwise specifically provided.

6. STAKING OUT WORK. The work to be done will be staked out for the contractor who shall, without cost to the Government, provide such material and give such assistance as may be required by the contracting officer.

7. BENCH MARKS AND SURVEY STAKES. Bench marks and survey stakes shall be preserved by the contractor, and in case of their destruction or removal by him or by his employees, they will be replaced by the contracting officer at the contractor's expense, and his sureties shall be liable therefor.

8. DATA TO BE FURNISHED BY CONTRACTOR. The contractor shall furnish the contracting officer reasonable facilities for obtaining such information as he may desire respecting the character of the materials and the progress and manner of the work, including all information necessary to determine its cost, such as the number of men employed, their pay, the time during which they worked on the various classes of construction, etc. The contractor shall also furnish the contracting officer copies of freight bills on all machinery, materials, and supplies shipped to or from the project in connection with the work under the contract.

9. SANITATION. The contracting officer may establish sanitary and police rules and regulations for all forces employed under this contract, and if the contractor fails to enforce these rules the contracting officer may enforce them at the expense of the contractor.

10. EXTRAS. The contractor shall, when ordered in writing by the contracting officer, perform extra work and furnish extra material, not covered by the specifications or included in the schedules, but forming an inseparable part of the work contracted for. Extra work and material will ordinarily be paid for at a lump sum or unit price agreed upon by the contractor and the

E-03 ONTARIO, ORE Dec 29 1971

DRAWN: M.B.K. SUBMITTED:
TRACED: E.O.P. RECOMMENDED:
CHECKED: R.L. APPROVED:

LOCATION MAP
ADVANCEMENT TRACT LATERAL

OWNER PROJECT - ONTARIO-IDAHO
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

Scale in Feet
0 200 400 600 800 1000

R47E

T18S

Sta. 0+00

Sta. 47+00

Sta. 174+??

Sta. 338+??

Sta. 0+00 of Lateral

Sta. 0+00 of Main Canal

Z

Overpass

Service Station

Grange Hall

Highway

Trail

Oregon

U.S. 30 S

18

17

16

9

8

7

6

18

Ditch

Headgate

Drop

Turnout

Waste

Wasteway

Check

Pump

Pipeline

Lateral

Main Canal

Ontario Main Canal

Ontario Lateral

Advancement Lateral

Stewart-Carter Lateral

Advancement Irrigation District

South Pump Site

North Pump Site

Ontario Pump Site

City of Ontario

U.S.L. R.R. (Burns Branch)

Owyhee

Owyhee Ave.

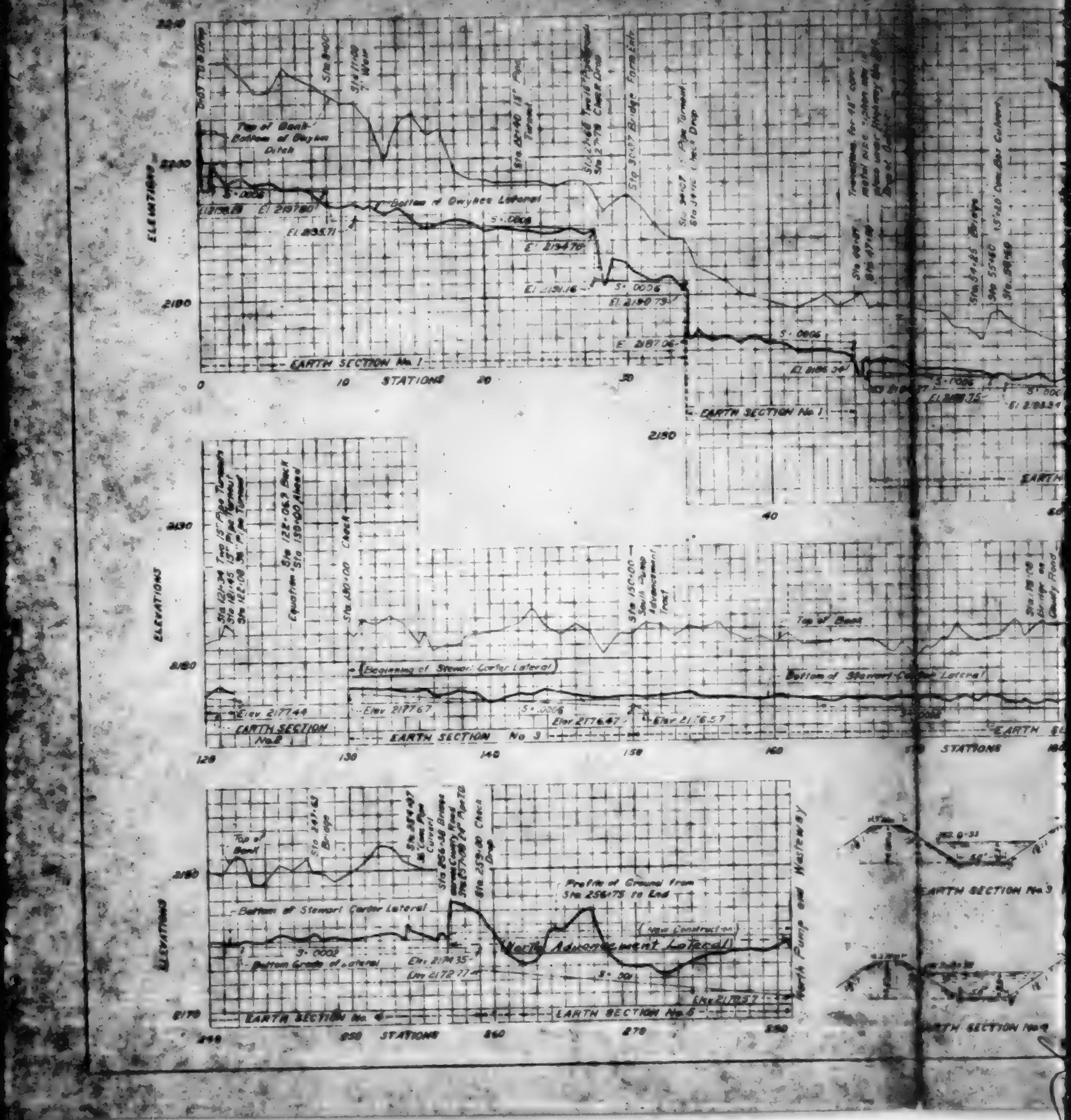
Owyhee Blvd.

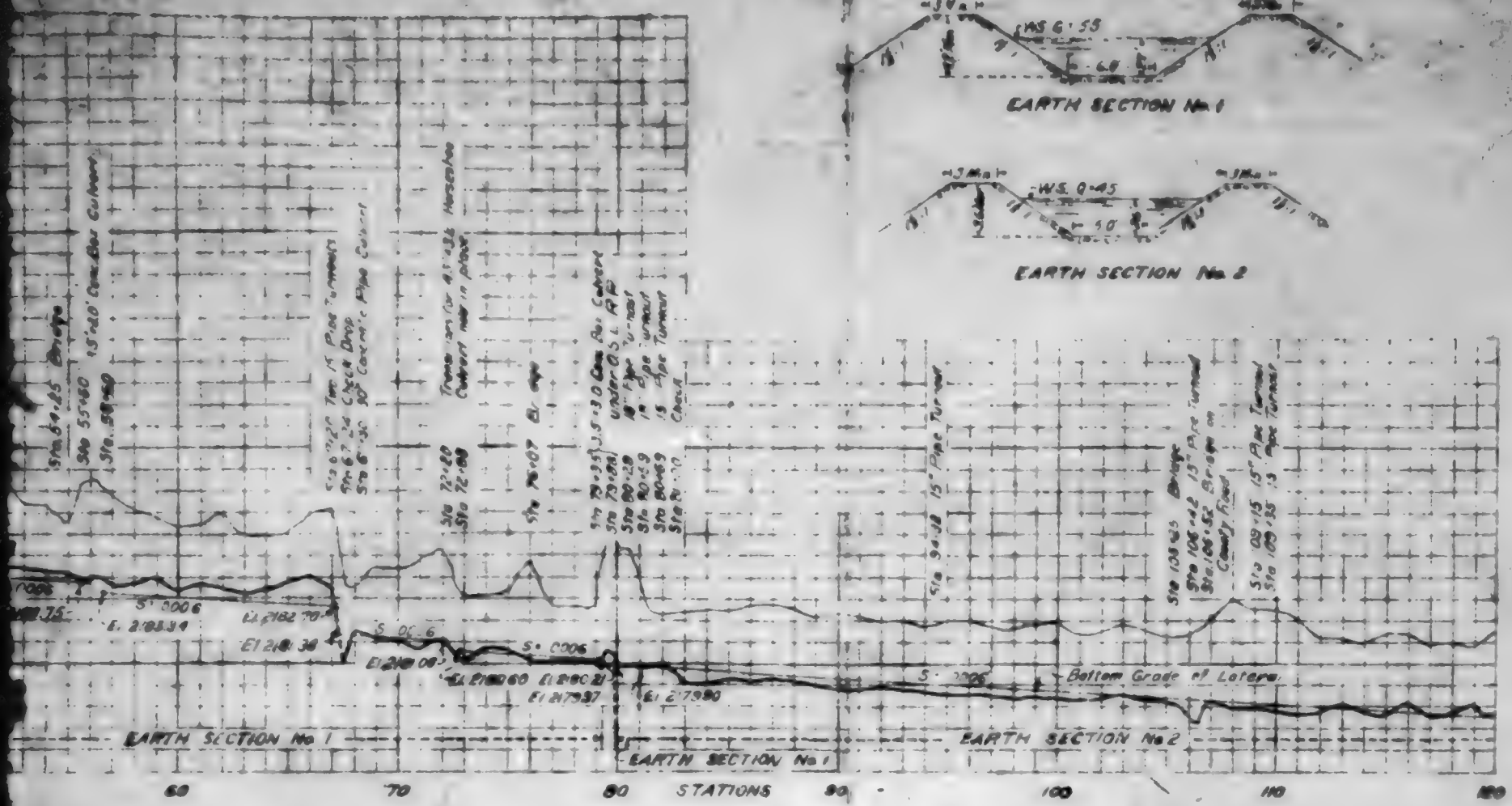
Owyhee Ave.

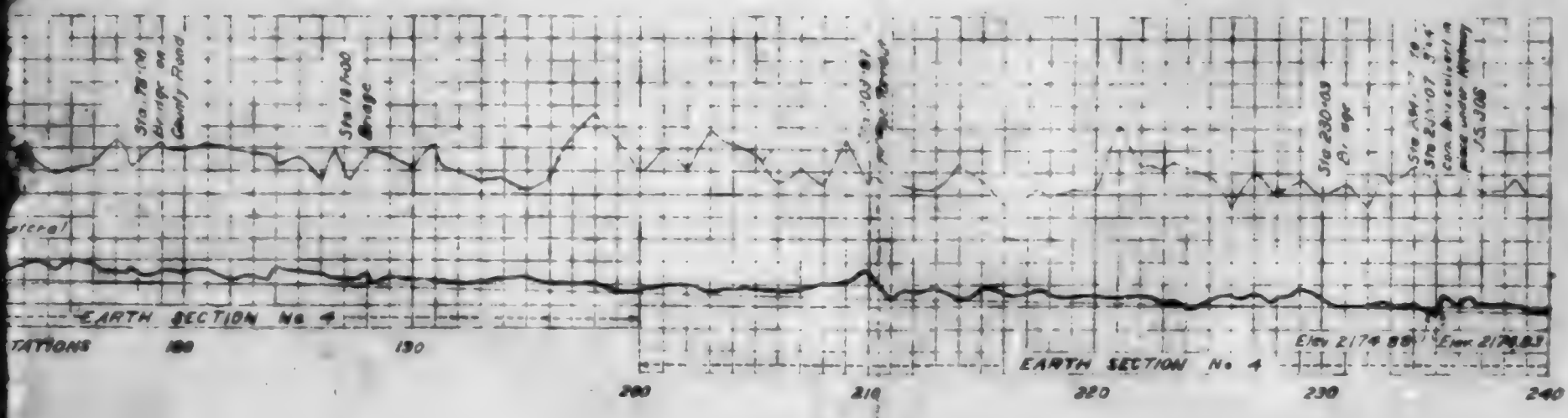
Owyhee Lateral

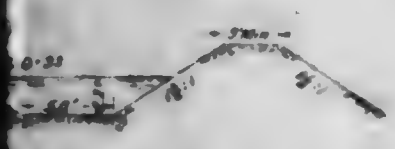
Owyhee Lateral

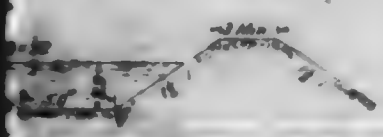
Owyhee Lateral

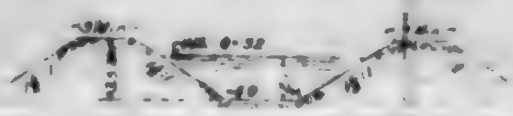

ELEVATIONS
2210
2200
2190
2180
2150
Top of Bank
Bottom of Gwynee Ditch
Bottom of Gwynee Lateral
S·0005
El 2197.80'
El 2195.71'
S·0006
El 2194.76'
El 2191.16'
S·0006
El 2190.79'
El 2187.06'
S·0006
El 2185.34'
EARTH SECTION No 1
0
10
STATIONS
20
30
40
EARTH SECTION No 1
2190
2180
2170
Top of Bank
Bottom of Stewart Carter Lateral
Elev 2177.44
Elev 2177.67
S·.0006
Elev 2176.47
Elev 2176.57
EARTH SECTION No 2
EARTH SECTION No 3
120
130
140
150
160
STATIONS
Top of Bank
Bottom of Stewart Carter Lateral
S·0002
Bottom Grade of Lateral
Elev 2174.35
Elev 2172.77
Profile of Ground from Sta 256+75 to End
(New Construction)
North Advancement Lateral
S·.001
Elev 2171.57
EARTH SECTION No 4
EARTH SECTION No 5
240
250
STATIONS
260
270
280
North Pump and Wasteway
EARTH SECTION No 3
EARTH SECTION No 4











HYDRAULIC PROPERTIES

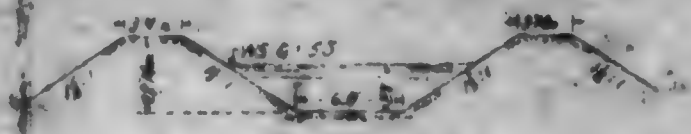
CANAL SECTIONS	A	V	Q	r	n	S
EARTH SECTION No. 1	27.15	2.03	55	1.78	.028	.0006
EARTH SECTION No. 2	23.4	1.93	45	1.61	.025	.0006
EARTH SECTION No. 3	18.26	1.75	33	1.41	.026	.0006
EARTH SECTION No. 4	27.3	1.17	32	1.76	.025	.0002
EARTH SECTION No. 5	15.60	2.13	32	1.30	.025	.001

DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ONTARIO PROJECT - OREGON - IDAHO

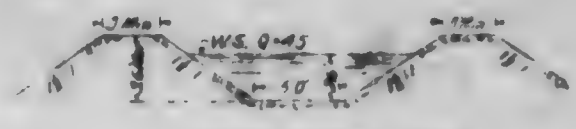
ADVANCEMENT TRACT LATERAL STA. 0+00 TO END PROFILE AND SECTIONS

DRAWN M.J.
TRACED E.D.R.
CHECKED H.S.G.
SUBMITTED: [signature]
RECOMMENDED: [signature]
APPROVED: A.S. Thomas

P-367 | ONTARIO, OREGON DEC. 12, 1934



EARTH SECTION No. 1



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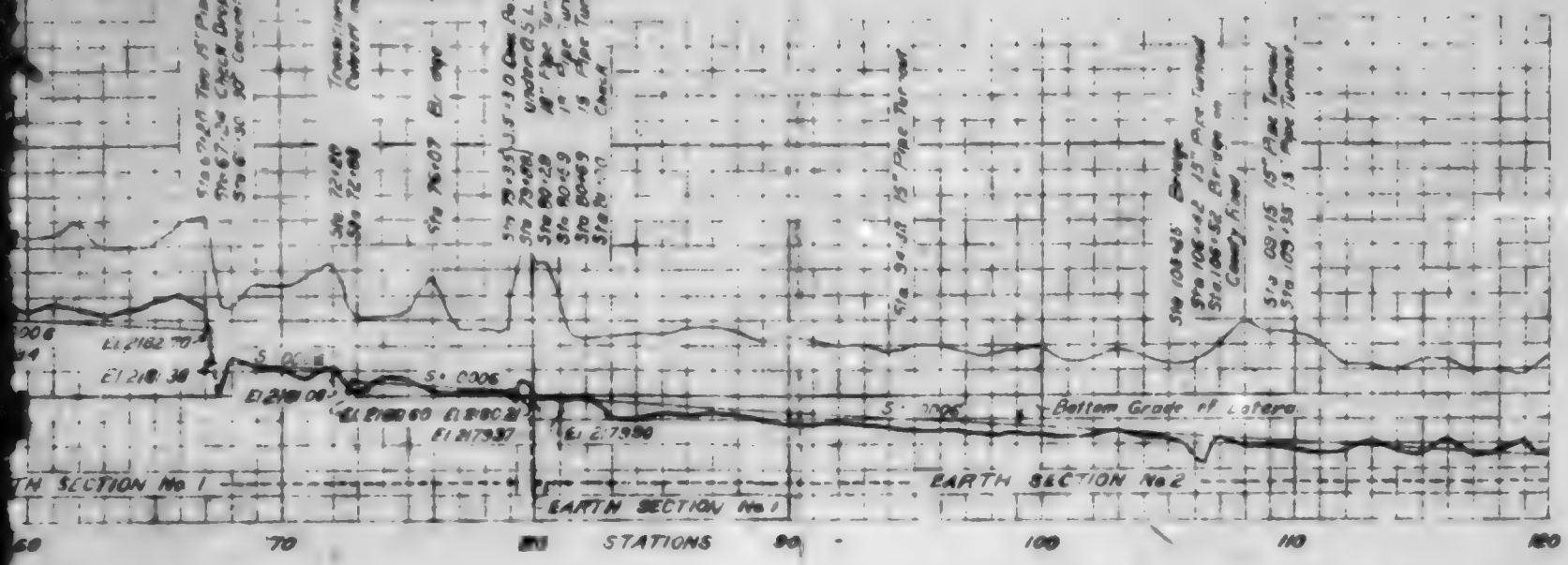
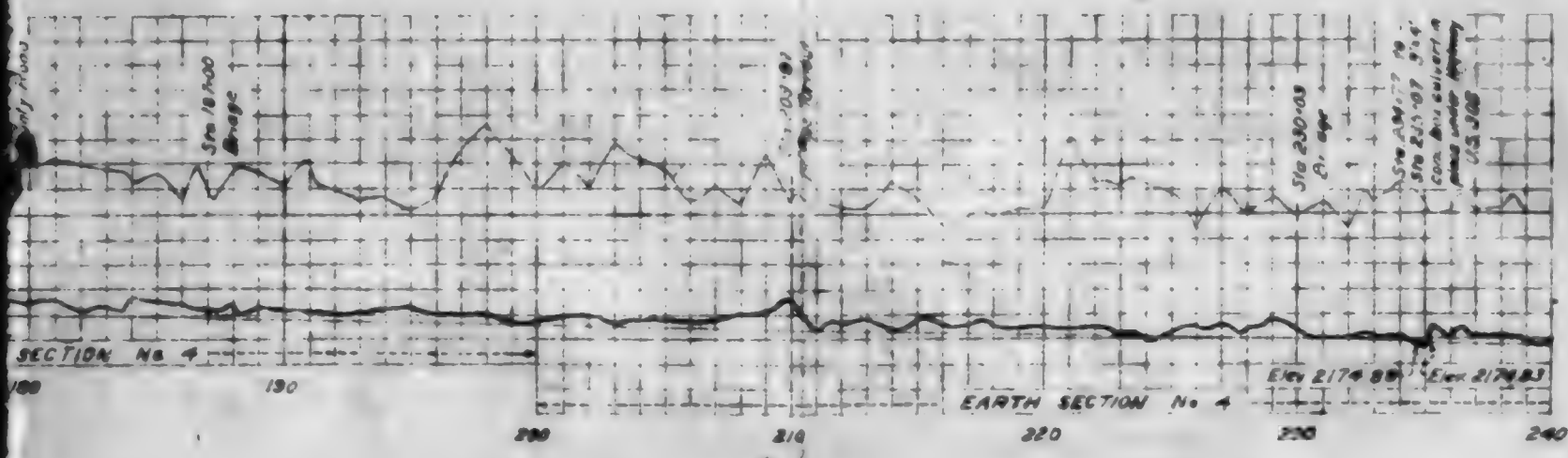




HYDRAULIC PROPERTIES

CANAL SECTIONS	A	V	Q	r	n	S
EARTH SECTION No. 1	27.15	2.03	55	1.79	.025	.0006
EARTH SECTION No. 2	23.4	1.93	45	1.61	.025	.0006
EARTH SECTION No. 3	19.26	1.75	33	1.41	.025	.0006
EARTH SECTION No. 4	27.13	1.17	32	1.76	.025	.0002
EARTH SECTION No. 5	5.85	3.13	18	1.30	.025	.001

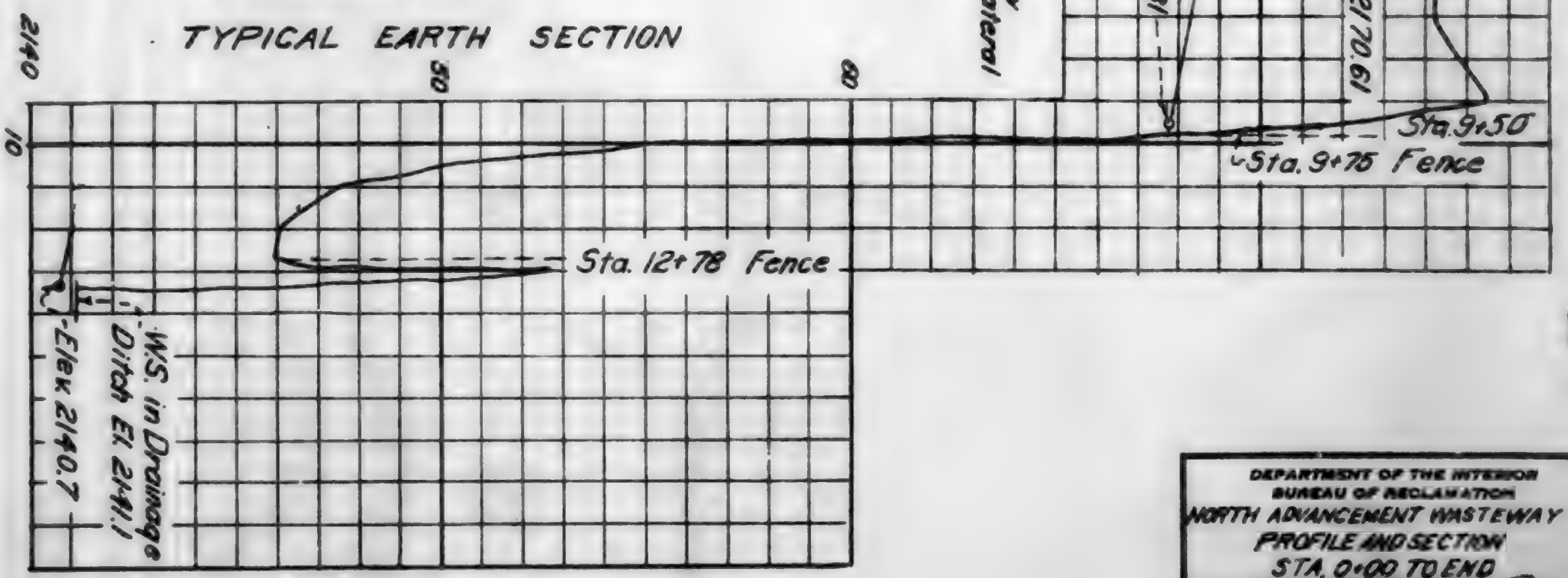
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ONTARIO PROJECT - OREGON - IDAHO

ADVANCEMENT TRACT LATERAL
STA. 0+00 TO END
PROFILE AND SECTIONS

DRAWN M.M. SUBMITTED: [signature]
TRACED E.D.R. RECOMMENDED: [signature]
CHECKED M.S.B. APPROVED: [signature]

P-367 ONTARIO, OREGON DEC. 12, 1934

TYPICAL EARTH SECTION



DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
NORTH ADVANCEMENT WASTEWAY
PROFILE AND SECTION
STA. 0+00 TO END

DRAWN: E.O.P. RECOMMENDED:
CHECKED: APPROVED:

A-234 | Ontario, Ore. | 12-29-34

NOTED
H. S. COX

November 26, 1968

Hon. Ellis A. White
Malheur County Judge
Courthouse
Vale, Oregon 97918

Dear Sir:

In compliance with State statutes and federal regulations the public must be afforded the opportunity for a public hearing regarding a federal-aid project when such project involves the by-passing or going through any city, town or village such as the proposed project on Verde Drive, FAS 23-103. In giving the public an ample opportunity for a public hearing the following steps should be taken by either Malheur County or the City of Ontario:

1. Notice to interested persons should appear in the proper news media in the area.

2. The notice should appear for one day's publication in two successive weeks as per the attached example.

3. A deadline date should be set for receiving requests from interested persons for a public hearing.

4. In the event requests are received, the County or City should hold a public hearing and forward to State (County & City Division) copies of all correspondence, news items with affidavits of publication, and hearing minutes.

5. In the event no requests are received and no hearing held, copies of all correspondence and news items should be forwarded to State (County & City Division).

6. All hearing procedures should be completed and copies of hearing items furnished to the State at least eight weeks prior to the bid letting date.

If any questions arise on this or any other matter pertaining to the proposed project, please call or write.

NOTED
HAROLD REYNOLDSON

Very truly yours,

Ferrest Cooper
State Highway Engineer

By: H. S. Cox
County and City Engineer

NOTED
P. B. Assessment

HHP:ab
Enc.

NOTED
MAINOR C. HOLMES

bc R. E. Simpson, HPR
R. L. Porter
F. B. Klabee
Victor Wolfe
L. H. Young
F. D. Morgan
D. J. Barbee
A. F. Parsen, Div. V

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

(Form prepared 6/1/66, DNH)

_____
DATE

City Council
City Hall
(City Name), Oregon

Attention: Honorable (Mayor's Name), Mayor

Gentlemen:

The (Co. Name) County (Court or Board of Com.) and the Oregon State Highway Commission have proposed plans for constructing the (Name of Section to be constructed) Section of FAS Route No. (Number) lying (partially within the) City of (City Name) in (Co. Name) County, Oregon.

The route of the proposed project is approximately as shown on the attached exhibit map.

In conformance to state statutes and federal regulations, the County will have a notice published in the (Name of Newspaper) newspaper on (Weekday) (Month & day), 19__, and (Weekday, (Month & day), 19__. This notice will inform interested parties of the proposed project and afford them an opportunity to request a hearing if they so desire.

The notice will contain information asking that any requests for a hearing be directed to the (City Name) City Council on or before (Weekday, (Month & day), 19__.

A reply as to whether or not any requests for a hearing have been received would be appreciated on or before (Weekday), (Month & day) 19__.

Very truly yours,

(Co. Name) COUNTY (Court or Board of Com.)

By_____

By_____

By_____

Attachment: Map

(Suggested) cc: City Recorder
City Engineer
County Engineer
County Clerk

(Form prepared 8/1/66)

_____
date

(Name of Newspaper)
(City Name), Oregon

(Name of Newspaper
(City Name), Oregon

Attention: Classified Ads Department

Gentlemen:

Attached is the (Co. Name) County (Court or Board of Com.) notice to interested people in the City of (City Name) in (Co. Name) County, Oregon, pertaining to the proposed plans for constructing the (Name of Section to be constructed) Section of FAS Route No. (Number) lying (partially within) said city. The route of the proposed project is approximately as shown on the attached exhibit map.

Please run this notice as a paid advertisement in your classified section under "Legal Notices" on (Weekday), (Month & day), 19__, and on (Weekday), (Month & day), 19__. Please submit your billing to this office in the (Co. Name) County Courthouse, (City Name), Oregon, and attach a copy of an affidavit of publication or a tear sheet for each date of publication.

This notice will be of interest to those who are affected by the plan, some of whom may not read your classified columns. It would be appreciated, therefore, if you will print a news item in the proper place in your newspaper advising where the official notice may be read.

It will be satisfactory to print the notice in one column. If any questions arise, we will be glad to advise you if you will telephone us at the courthouse.

Very truly yours,

(Co. Name) COUNTY (Court or Board of Com.)

By_____

_____

_____

Attachments: Map & Notice

cc: County Engineer
County Clerk

(Form prepared 6/1/66)

NOTICE

Notice is hereby given that the (Co. Name) County (Court or Board of Com) and the Oregon State Highway Commission have proposed plans for constructing the (Name of Section to be constructed) Section of FAS Route No. (Number) lying (partially within) the city of (City Name), in (Co. Name) County, Oregon.

The proposed project will basically involve (description of work to be done plus location and name of street or road) and will be approximately (Number) miles in length.

This notice is given in compliance with federal regulations and state statutes pertaining to this type of project whereby it is required that public notice be given to enable interested persons to request a hearing on the proposed project. If any interested person desires such a hearing, a request for a hearing should be directed to the (City Name) City Council on or before (Weekday), (Month & day), 19__.

(Co Name) COUNTY (Court or Board of Com.)

_____
date

(Name of Newspaper), (City), Oregon
(Name of Newspaper), (City), Oregon

NOTED
H. S. COX

Salem, Oregon
October 16, 1968

Mr. George Wills
Construction Division

Verde Drive (Ontario) Section
FAS 23-103
Malheur County

B U I L D I N G

The survey data for the above project has been examined and found to be consistent with the project as requested by the County and approved by the Highway Commission, except that the project is to be divided into three separate contracts - the intended schedule as follows:

1. The first contract will be to install irrigation facilities. This contract will be paid with FAS funds and is to be completed by April 1 as irrigation water is to be turned into the ditches on April 15.

2. The second contract will be to install sewer lines and water mains, and do the grading. This contract will be by others (city of Ontario) and to be completed by July 24.

3. The third contract will be an FAS-C contract and will complete the project; and is to consist of surfacing, paving, and curbs.

Final irrigation plans are to be checked out with the irrigation company as soon as possible.

Because irrigation water will be turned into this irrigation system on April 15, it is important that this project be contracted as soon as possible.

NOTED
HAROLD REYNOLDSON

Harold Reynoldson
Planning Engineer
County and City Division

HR:eb
Enc.

NOTED
P. B. Arensmeier

cc Ted Litchfield
Division V
Hon. Ellis White,
Malheur County Judge

NOTED
R. H. PRANGE

NOTED
MAINOR C. HOLMES

NOTED
RICHARD UNREIN

NOTED
DON HARWELL

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section VERDE DRIVE (ONTARIO) Highway CITY ST. & FAS 23-103 County MALHEUR Prefix 523-1713

Res. Engr. _____ Approx. Length 1.0± Miles. Sta. _____ to Sta. _____ Date 7-19-68

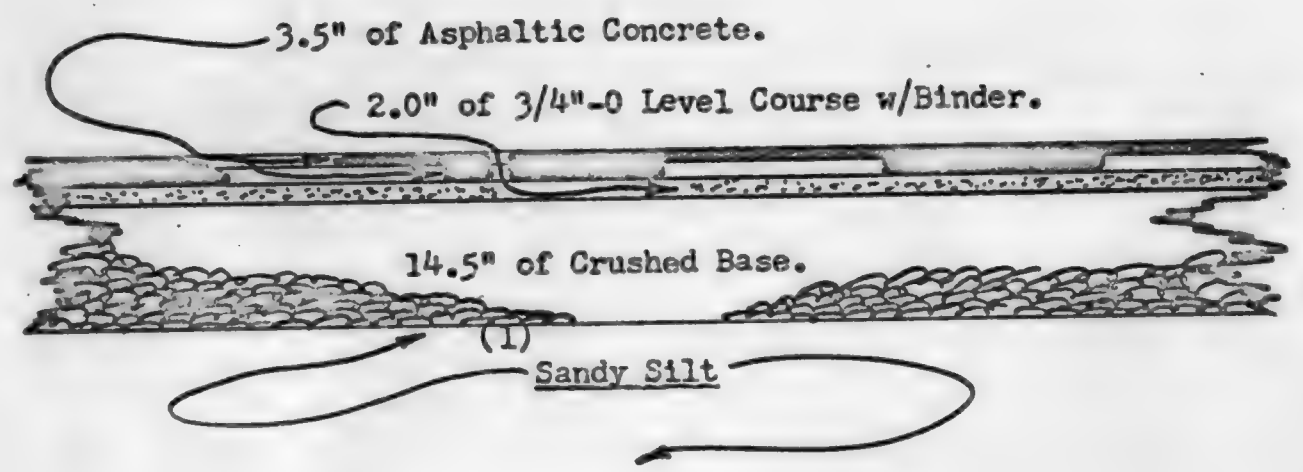
Mean Truck A.D.T. 139 Traffic Coefficient 7.4 18 kip s.a. per day 34.3 (Automobiles not considered.)

Annual Precipitation 10"± Frost Penetration 24"±

(1)
Typical Soil
27 LL
2 PI
100 %P 10
84 %P200
0 %Gravel
3 %C Sand
13 %F Sand
68 %Silt
16 %Clay
10 "R" Value
(Combined)

AASHO CLASSIFICATION:
A-4 (8)

MATERIAL SOURCES:
To be determined by the Engineer.



CBR Total Req.	Credit	Actual Thick.	
	7.0	3.5	A.C.
	2.0	2.0	Level
	14.5	14.5	Cr. Base
23.5	23.5	20.0	

See remarks on Page 2.

NOTED
F. B. KLABOE

cc:
B.P.R.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Office Engineer
Design Engineer
Division Geologist
[illegible]
Rural Engineer
County-City (2)

Submitted by C. O. Boggs for Staff Assistant

Recommended by E. W. Olson asst Engineer of Materials

Recommended by L. L. Oerker asst Construction Engineer

Approved by W B Klaboe Asst. State Highway Engineer

VERDE DRIVE (ONTARIO)
CITY STREET & FAS 23-103
MALHEUR COUNTY

"OTHER ROADS"

"R" = 10								
TRAFFIC COEFFICIENT		A.C. XXXXXX WEAR SURF	or P.M.B.B. C.T.B.	3/4"-0 LEVEL COURSE	CRUSHED BASE	OR L.T.S. S.S.	"CBE" TOTAL REQUIREMENT	ACTUA THICKNE
6 - 7		3.0"	- - - -	2.0"	14.5"	- - - - -	21.0"	18.0"
4.8 - 6		2.0"	- - - -	2.0"	11.5"	- - - - -	17.5"	15.5"
Cars Only		2.0"	- - - -	2.0"	*8.0"	- - - - -	13.0"	*12.0"

*Increased to equal ½ the reported frost penetration.

Should substitutions be made use the "CBE" TOTAL REQUIREMENT column to obtain the "TOTAL THICKNESS REQUIRED" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0" Crushed Base
1.0"	Plant Mix Bituminous Base	=	---" Crushed Base
1.0"	Cement Treated Base	=	---" Crushed Base
1.0"	Oil Mat	=	1.1" Crushed Base
1.0"	Stone Subbase (Per Standard Specifications) (plus Supplementals.)	=	0.8" Crushed Base
1.0"	Lime Treated Subgrade	=	---" Crushed Base

Remarks:

Discussion with H.S. Cox (County-City) indicated that no attempt will be made to salvage the existing roadway due to the extensive drainage work planned.

TRAFFIC ANALYSIS

SECTION: VERDE DRIVE (ONTARIO)

HIGHWAY: CITY STREET & FAS 23-103

COUNTY: MALHEUR

1550 Present ADT (1968)

7 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	70	1.5	105	88	450	39,600
3	35	1.5	53	44	1000	44,000
4	0	- - -	- - -	- -	1250	- - -
5	5	1.5	8	7	3180	22,260
6	0	- -	- - -	- -	2570	- - -
				139	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 105,860

TWENTY YEAR EWL 2,117,200

TRAFFIC COEFFICIENT 7.4

SECTION: VERDE DRIVE (ONTARIO)

HIGHWAY: CITY STREET & FAS 23-103

COUNTY: MALHEUR

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A. C. or Oil
7. Stage Construction: Not applicable
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: The City and County prefers Asphaltic Concrete
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made for this project. See Items 6 and 12.

FAS 23 103
Malheur Co.

FORM S-501—20M—2-66 SP*18500-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

La Grande, Oregon
May 16, 1967

RECEIVED
MAY 24 1967
COUNTY & CITY ENGINEER
COUNTY & CITY DIVISION

To Mr. A. F. Parsons
Division Engineer
La Grande

SUBJECT: Soils Investigation
Verde Drive
FAS 23-103
Malheur County

Field work on the subject section has been completed except for sampling and exploration of material sources. For sampling purposes M.P. 0.0 is at the junction with the Olds Ferry-Ontario Highway.

Soil on the project is a fine sandy silt, represented by SD #41032 taken at M.P. 0.36 and 0.75.

Present wearing surface is an oil mat in generally good condition. There are a few broken spots and from M.P. 0.9 to 0.99 there is some wash boarding. Depth of surfacing is as follows. Width of oil varies from 20' to 22'.

Hole #1 M.P. 0.36
0" - 2" - oil mat
2" - 18" - clean pit run gravel and sand
18" - - fine sandy silt

Hole #2 M.P. 0.75
0" - 1½" - oil mat
1½" - 12½" - clean pit run gravel and sand
12½" - - fine sandy silt

Pit run gravel base is represented by SD #41031, sampled at M.P. 0.36 and 0.75.

Irrigation or drain ditches are adjacent to the road along most of the project. An irrigation ditch is along the west side from M.P. 0.13 to M.P. 0.29 and is on the east side from M.P. 0.29 to 0.75. The 21' wide wooden bridge at M.P. 0.29 will have to be replaced. There is a drain ditch on the west side from M.P. 0.5 to 0.75 where it crosses the road, through a pipe, and drains into the irrigation ditch.

Frost penetration is ± 24".

The county gravel pit has not been sampled as yet.

Vernal Moore

Vernal Moore
Division Geologist

VM:md
cc/ F. D. Morgan
J. E. Marelock
E. S. Cox
E. S. Thompson

NOTED
HAROLD REYNOLDSON

NOTED
RICHARD UNREIN

NOTED
P. B. Arensmeier

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

Prefix No. 523-1413

LOCATION PROSPECTUS
VERDE DRIVE (ONTARIO) SECTION
CITY STREET AND COUNTY ROAD, FAS 23-103
MALHEUR COUNTY

HIGHWAY: Verde Drive, city of Ontario; County of Malheur, Federal-aid No. 23-103.

TERMINI: The northerly end is at the intersection of Verde Drive with Malheur Drive. The southerly end is at the intersection of Verde Drive with the Olds Ferry-Ontario Secondary Highway.

NOTED
H. S. COX

LENGTH: 1.0 mile.

PROGRAM: 1967 - 1968 FAS-C Funds.

NARRATIVE: This will be a location survey to prepare plans, specifications and estimates for grading, paving and curbs on existing alignment. No reconnaissance is necessary. The survey need not be tied to the Lambert Grid System. Drainage studies will be made and any problems resolved. Soils investigations will be conducted. An economic analysis is not needed at this time.

RECEIVED
MAY 10 1967
ENGINEER
COUNTY & CITY DIVISION

TYPICAL SECTION: Two 24-foot travel lanes with curbs.

BASE DESIGN: The tentative base design for construction is:

Paving	3-1/2"	A.C.
Top Course Base	2 "	Leveling
Bottom Course Base	12 "	Crushed Base
Total Depth	17-1/2"	

MATERIAL: To be located and referenced to this project during the survey.

ACCESS: No control.

AGREEMENTS: Routine City and County agreements for FAS-C project

FAS-C & Hearing

UTILITIES: Routine utility adjustments may be necessary.

PARKS OR REST AREAS: None affected.

ADDITIONAL FACILITIES: No railroads, airports or major streams affected.

May 10, 1967
Attachment
cc: A. W. Parsons (3)
Forrest Cooper
F. B. Klaboe
Victor D. Wolfe
Tom Edwards
F. D. Morgan
A. F. Parson (3)
Mark Astrup
R. N. Chase
H. S. Cox
F. B. Crandall
Frank Hall
E. S. Hunter
Val Johnson
Ivan Merchant (4)
D. H. Moehring (3)
A. D. Olson
James Owens
Phil Preston (2)
Jack Rowland
Robert Royer
W. H. Tebeau
O. C. Turner
F. W. Yarbrough (2)
L. H. Young

NOTED
R. H. PRANGE

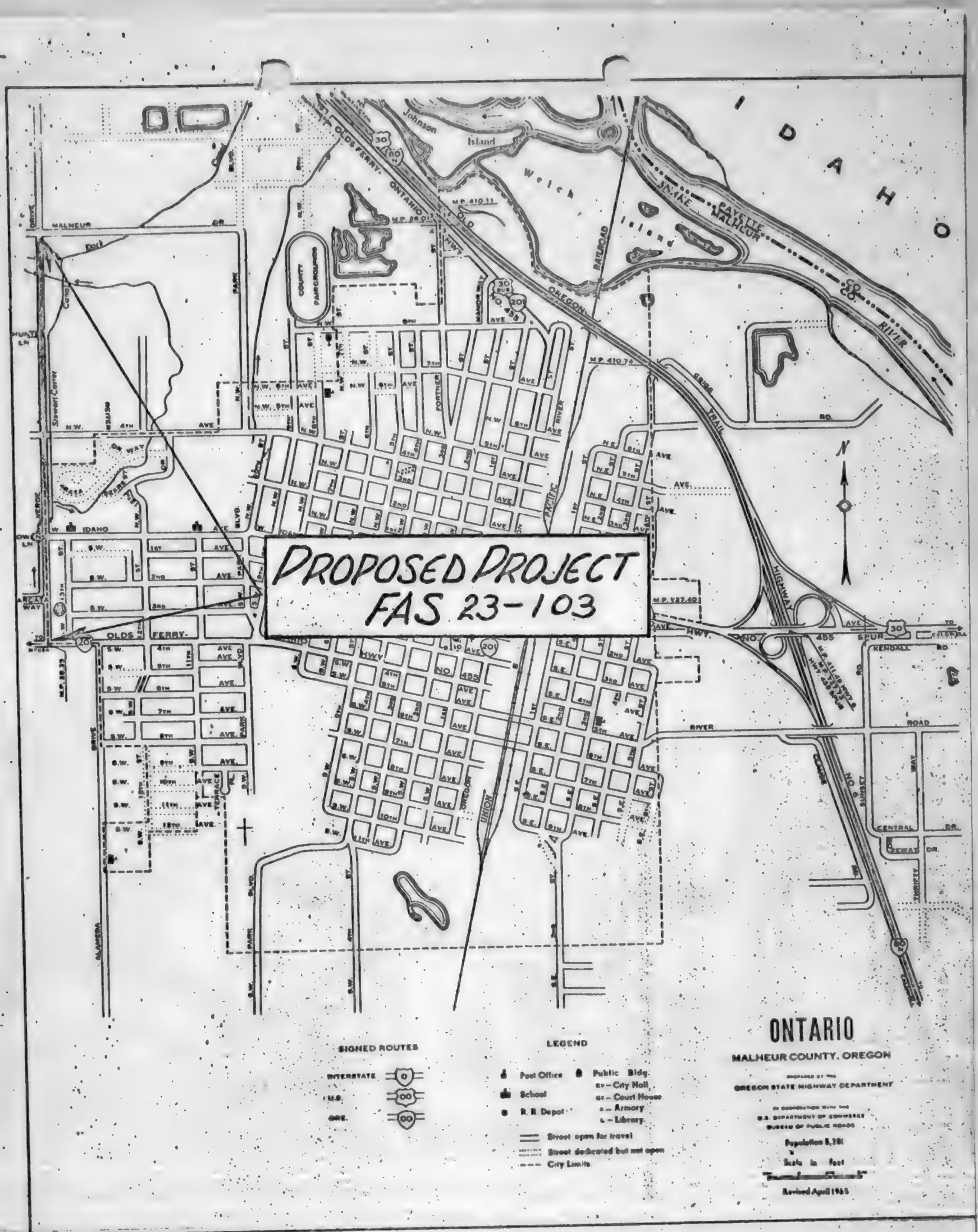
NOTED
HAROLD REYNOLDSON

NOTED
RICHARD UNREIN

NOTED
MAINOR C. HOLMES

NOTED
P. B. Arasmeier

NOTED
DON HARWELL


PROPOSED PROJECT
FAS 23-103
IDAHO
Johnson Island
Welch Island
SNAKE
FAYETTE
MALHEUR
RIVER
OREGON
RAILROAD
OLDS FERRY
ONTARIO
OLD
COUNTY FAIRGROUNDS
MALHEUR
Dam
Stewart Center
PARK
N.W.
S.W.
S.E.
N.E.
AVE
ST
BLVD
IDAHO
OR. WAY
PACIFIC
HIGHWAY
HWY
NO. 455
SPUR
KENDALL
RD.
ROAD
RIVER
UNION
CENTRAL
DR.
ALASKA
TERRACE
CROSS
TRAIL
N
SIGNED ROUTES
INTERSTATE
U.S.
ORE.
LEGEND
Post Office
School
R. R. Depot
Public Bldg.
cy – City Hall
cr – Court House
a – Armory
l – Library
Street open for travel
Street dedicated but not open
City Limits
ONTARIO
MALHEUR COUNTY, OREGON
OREGON STATE HIGHWAY DEPARTMENT
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
Population 5,381
Scale in Feet
Revised April 1965

MALHEUR COUNTY
PROPOSED PROJECT (1967-1968 FUNDS)

✓ FAS 23-103, Verde Drive, grading, base, curb, pave and drainage, 1 mile, $200,000.

State to do survey. This project will include grading and paving with A C a 48' curb section on a tangent, a portion of which is in the City of Ontario, also place a large tile which will be used for both irrigation and drainage. County has a proposed material source. No additional right of way necessary.

HIWAY COMMISSION
APPROVED ON APR 25 1967

67-c
4/11/67

10/18/66

COUNTY ROAD FAS PROJECT DATA

1. Name of County Malheur FAS No. 23-183
2. County Road Name Vendell Davis
3. Section Name _____ Length 1 Mile
4. Type of Project Grading, Covering Ditch Ditching
5. Survey to be done by: State X County _____
   (NOTE: If project is canceled, County must pay for survey.)

PROJECT DATA -

6. Has base design been given to County? Yes ____ No X

   Will it be furnished? Yes ____ No ____

7. Wearing Surface: Type AC Width 48' ~~Shoulders~~ Curbs Judge White 4/10/67

8. Grading & Drainage:

   By County ____ County Date of Completion _____ By Contract X

9. Bottom Base Course:

   By County ____ County Date of Completion _____ By Contract X

10. Leveling Course:

    By County ____ County Date of Completion _____ By Contract X

11. Wearing Surface:

    By County ____ County Date of Completion _____ By Contract X

12. Clearing:

    By County ____ County Date of Completion _____ By Contract X

13. Is there any merchantable timber on right-of-way? Yes ____ No X

14. Will timber be reserved for owner? Yes ____ No ____

15. Will timber become property of contractor? Yes ____ No ____

    Remarks _____

MATERIAL SOURCE -

16. Gravel X Quarry _____ Cinders _____

17. Owner: County X State _____ Private _____

18. Location: NE 1/4 Section ~~25~~ 28 Township ~~11~~ 10 N Range R6 W~~M~~ Boise

CAR 61-8

19. Materials furnished by County: Borrow X Select Topping X

Base Course X Level Course X Mineral Aggregates X

20. Miscellaneous Items: _____

Remarks: _____

_____

FINANCIAL- -

21. Estimated Cost: $ 200,000

22. Available FAS Funds: $ _____

23. Date Match Money is Available: Time of contract

24. Will there be any 100% County Money? Yes ___ No X

25. Maximum Amount of 100% County Money Available: $ _____

26. Date County Requests Letting: Fall of 1967.

Remarks _____

_____

RIGHT-OF-WAY- -

27. Is any additional right-of-way needed? Yes ___ No X

28. Will right-of-way be acquired by: Resolution ____ or Deed X

29. Should State prepare options? Yes X No ____

30. Should State prepare centerline descriptions for acquiring right-of-way by resolution? Yes ____ No ____

31. Should material source site be included in right-of-way descriptions? Yes ____ No X

32. Does project run inside city? Yes X No ____
(NOTE: If right-of-way is procured in community with post office or in a city, an opportunity for hearing must be afforded. [redacted])

33. Are there any utilities (electric, water, gas, sewer, etc.) on private land? Yes X No ____
(NOTE: County must move all utilities located on present right-of-way.)

Remarks Irrigation, Drainage ditches to be put in pipe as part of project

cer 61-8

RAILROADS- -

34. Location: none

35. Name of Railroad: _____

36. Number of tracks: _____

37. Sight distance: _____(Left) _____(Right)

38. Number of trains_____

39. Angle of intersection_____

40. Type of crossing: Grade____ Overcrossing____ Undercrossing____

41. Number of signs: Advance Warning_____ Crossbucks_____ Stop_____

Automatic Flashing_____ Automatic Bell_____ Gates_____

Remarks_____

STRUCTURES- -

42. Are there any structures to be replaced or altered? Yes____ No____

43. Will replacement by by: County_____ Contract_____
(NOTE: If by contract, fill out bridge questionnaire form.)

44. Will County adjust structure to new grade? Yes____ No____

45. Will County adjust structure to additional width? Yes____ No____

46. Will adjusted width be standard? Yes____ No____
(NOTE: Standard width of structure is 4 feet wider than wearing surface width. If structure is of substandard width, County must sign same to satisfaction of Bureau of Public Roads.)

Remarks none

_____

47. Is project contingent upon other factors? Yes____ No X

48. Such as: (a) Construction (Cooperative project by County, tie-in with outside projects)

Explain:_____

_____

_____

_____

CCR 61-8

49. (b) Timing (Cooperative project by County, finance, irrigation, industrial usage, outside projects)

Explain: fall & winter

50. (c) Surveys (Coordination with outside surveys)

Explain: _____

MISCELLANEOUS -

51. Does County wish rounding of cutbanks? Yes___ No X

52. Does County wish sight posts installed? Yes___ No X

53. Does County wish guard rail installed? Yes___ No X

54. Does County wish seeding and mulching incorporated into job?

Yes___ No X

NOTE: Approach fills for pile bent structures must be in place prior to bridge construction.

Malheur County

Oct 18, 1966 Date

By Ellis A. White
Judge or Commission Chairman

By Walt Gilspie
County Engineer
Surveyor

_____
O.S.H.D. Field Engineer

Date_____

CCR 4-8

The County of Malheur

MALHEUR COUNTY COURT

ELLIS A. WHITE,
County Judge

Earl M. Flock,
Commissioner

Jacob Fischer,
Commissioner

VALE, OREGON 97918

June 7, 1966

FAS 23-103

Mr. H. S. Cox, Superintendant
County - City Division
Oregon State Highway Department
Salem, Oregon

Dear Cy:

The County of Malheur, and City of Ontario, desire to enter into an F. A. S. Project on Verde Drive on the east side of Section 5, Twnshp. 18, S., Range 47 E.W.M.; therefore, the County Court, by resolution, is requesting that this one (1) mile of road bounded by the city limits of Ontario on the west, and the east side bounded by the County, be placed on the F. A. S. System.

The project will include widening the existing road, tiling an irrigation and drainage ditch for approximately ½ mile, installing a 4-foot tile bridge or culvert, and installing approximately ½ mile of sidewalk.

The Court, the City of Ontario, and a citizens' committee would appreciate having you, or one of your engineers, go over this project some time in the near future.

This project is presently a hazard to both pedestrian and vehicle travel, and is badly needed by the area, and desired by both County and City.

Sincerely,

MALHEUR COUNTY COURT

Ellis A. White

Ellis A. White
Malheur County Judge

RECEIVED
JUN 9 1966
ENGINEER
COUNTY & CITY DIVISION

NOTED
R. H. PRANGE

NOTED
V. R. JONES

I-405-8(22) E. Fremont Interch. Section, 1971
304 of Stadium Frwy., in Portland
#7310 (Unit A) Folder #5

7310

11-3-77

cc: OSHD (H.S. Coulter)
Wash Dc (HHO-32)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL ACCEPTANCE REPORT

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	32	Multnomah	Oregon

DATE OF REPORT	REPORT MADE BY	PROJECT NO.
11-3-77	C.T. Christianson, Area Engr	I-405-8(22-24)304

COMPLETION DATE	ACCEPTANCE DATE BY CONTRACT AGENCY	TIME ELAPSED	CONTRACT TIME
See Below	See below	See below %	See below

APPROVED EXTENSIONS	LOCATION
See Below	Junction of I-5 and I-405 (North End), Portland

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

PROJECT NO.	CONTRACT NO.	COMPLETED	OSHD ACCEPTANCE
I-405-8(22)304	7298	5-5-70	5-12-70
I-405-8(22)304	7310	11-28-72	7-5-73
I-405-8(23)304	7311	5-25-73	7-5-73 11-10-77 cy Kinsey
I-405-8(24)304	7312	11-28-72	2-2-73

PROJECT NO.	CONTRACT TIME	APPROVED EXT.	TIME USED
I-405-8(22)304	spec.date 12-31-69	to 3-5-70	comp.5-5-70
I-405-8(22)304	755 CD	210	949
I-405-8(23)304	755 CD	210	900
I-405-8(24)304	660 CD	210	943

RECEIVED
STATE HWY ENGR
NOV 10 '77
REFER TO
FOR
Init. | Inspt. | R/D | D/R | Engr | Act | Clk

EAST FREMONT INTERCHANGE
STADIUM FREEWAY
Grading, Paving, Structures and Traffic Control Devices

Based on a final inspection on 11-29-72, this set of projects was accepted subject to satisfactory resolution of problems encountered with the paint system. These problems are now resolved to the mutual satisfaction of all parties involved. Since all of these projects were awarded to the same contractor and were under the direction of the same Resident Engineer, they have been handled as one.

COPY SENT
NOV 9 1977
Washington

*NOTE: Not applicable for direct federal projects.

-more-

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE: C.T. Christianson		SIGNATURE: E. J. Valach — Original signed by E. J. Valach Dist. Engineer	
TITLE: Area Engineer	DATE: 11-3-77	TITLE: District Engineer	DATE: 11-3-77

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

There were no significant changes in project costs as noted by the following tabulation:

CONTRACT	ORIGINAL AUTH	FINAL COST
7298	$ 144,453.72	$ 143,491.37
7310	13,928,737.75	14,065,500.00
7311	9,458,459.11	9,458,944.48
7312	2,218,093.60	2,160,000.00

These figures include engineering and contingencies.

OMB No. 04-R2274

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS

(PPM 20-2 and PPM 40-4)

ALL — *To be completed by Washington Headquarters Personnel*

PART A *(To be completed by FHWA or State Highway Personnel (See instructions on reverse))*

STATE	COUNTY	FEDERAL PROJECT NO.	URBAN / RURAL
Oregon	Multnomah	I-405-8(22)304; (23)304; (24)304	URBAN (X) RURAL ( )

	ITEM	DESCRIPTION	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY (Over 20 ft.)	DATE STARTED
CARD A		CONSTRUCTION TYPE CODES				September 26, 1969
	20	FINAL CONSTRUCTION COST	DOL.	1,546,500	22,826,100	DATE COMPLETED: November 28, 1972
	21	LENGTH OF PROJECT	MILES	-	0.353	TOTAL NO. BRIDGES: 3

PART B *(To be completed by contractor - See instructions on reverse) (REMARKS: Attach plain sheet of paper)*

	ITEM	DESCRIPTION	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY (Over 20 ft.)
CARD B	30	LABOR — TOTAL MAN HOURS: 540,601	GROSS EARNINGS	5,173,911	
	22	TOTAL COST OF ALL MATERIALS AND SUPPLIES	DOL.	485,277	15,918,777
	9	PETROLEUM PRODUCTS	GAL.	24,166	146,482
	1	CEMENT	BBL.	-	900
CARD C	2	AGGREGATES PURCHASED	TON.	10,622	3,827
	92		CU. YD.	-	-
	3	BITUMINOUS MATERIAL	GAL.	1,440	-
	4	LUMBER	MFBM.	11	1,361
CARD D	5	TIMBER PILING	LIN. FT.	-	13,444
	7	REINFORCING STEEL	LB.	180,108	10,472,227
	8	STRUCTURAL STEEL	LB.	-	31,679,424
	10	EXPLOSIVES	LB.	-	-
CARD E	11	READY-MIXED CONCRETE	CU. YD.	2,953	46,563
	12	PREMIXED BITUMINOUS PAVING MATERIALS	TON	13,623	-
	15	AGGREGATES PRODUCED	TON	-	-
	95		CU. YD.	-	-
CARD F	16	MISCELLANEOUS STEEL	LB.	44,678	115,639
	17	FENCING	LIN. FT.	3,770	-
	18	GUARDRAIL	LIN. FT.	4,126	-
	19	BRIDGE RAIL	LIN. FT.		23,203
CARD G	23	FINAL CONTRACT AMOUNT FOR SIGNS	DOL.	46,520	46,300
	24	FINAL CONTRACT AMOUNT FOR LIGHTING	DOL.	75,930	80,000

Blocks 48-70 to be completed by FHWA Washington Headquarters Personnel

48 — 52 | 53 — 61 | 62 — 70

CARD H — CULVERT ITEMS

ITEM	SIZE (In.)	LGTH. (Lin. ft.)
6	CORRUGATED STEEL CULVERT	
	6	372
	8	5,898
	12	481

CARD J

ITEM		
13	CONCRETE PIPE	
	8	3,664
	10	53
	12	5,349
	15	1,531
	21	376
	24	107

CARD K

ITEM		
14	CLAY PIPE AND DRAIN TILE	

CARD L

ITEM		
25	CORR. ALUMINUM CULVERT	

CARD M

ITEM		
26	CAST IRON PIPE	

FORM PR-47 (REV. 3-72) PREVIOUS EDITIONS ARE OBSOLETE

INSTRUCTIONS FOR PREPARING AND TRANSMITTING FORM PR-47

GENERAL REQUIREMENTS

Form PR-47 should be transmitted for each highway construction project involving Federal funds except those that consist primarily of the installation of protective devices at railroad grade crossings, those that are constructed on a force account or direct labor basis, Federal-aid Secondary projects, highway work under the direct supervision of the Federal Highway Administration, and highway beautification projects financed with 319(b) funds.

Form PR-47 should be transmitted with or in advance of the Final Report required by Policy and Procedure Memorandum 20-6.1.

A separate form should be transmitted for each contract except that data for two or more contracts on the same project may be combined when such contracts are completed at approximately the same time. In case of a combination, the earliest starting date and the latest completion date should be reported. Where a single contract covers more than one project, only one form should be prepared. A Form PR-47 should not be prepared for a contract covering only the purchase of material but the quantity of material should be reported when subsequently included in a construction project. In all cases, **only the original** of Form PR-47, typed or clearly lettered, and **no carbon or "fast" copies,** should be transmitted to the Washington Office.

If nonparticipating work is included in the contract, all data should be combined with the Federal-aid data in preparing the form. Data for any subcontract should be combined by the State or the division office with that for the prime contract if not so combined by the prime contractor. Quantities of State-furnished materials should be included with contract quantities, and costs of State-furnished materials should be added to Item 20 "Final Construction Cost" and also to Item 22 "Total Cost of All Materials and Supplies". **All quantities should be reported to the nearest whole unit and only in the units specified. All costs should be reported to the nearest dollar.**

Check urban or rural to indicate whether the major cost is for work within an urban area, or in a rural location.

All figures should be verified for reasonableness by State highway department and Federal Highway Administration division office engineers. The total material cost and the total man-hours and gross earnings should bear reasonable relationships to the contract construction amount. Also the quantity of each material reported should be reasonable with respect to the size and nature of the contract and with respect to the quantities of other materials. For example, if a large quantity of reinforcing steel is reported with no cement or ready-mixed concrete, an error of omission in reporting would be indicated.

Average figures for all of these relationships are shown in Tables PT-2a and PT-4 of HIGHWAY STATISTICS, in the published tabulations of highway construction material usage factors, and in an article on highway construction labor in PUBLIC ROADS volume 28, No. 6, February 1957.

Generally, the total cost of materials, supplies, and labor should be substantially less than the final construction cost, as the latter also includes costs of equipment ownership, overhead, and profit which are not required to be reported. If the final construction cost is less or only a few percent more than the total cost of materials, supplies and labor, the indication is that the contractor suffered a loss on the project or that there is an error in reporting. In such case, if it is determined that the figures reported are correct, a statement should be made on plain sheet of paper marked "Remarks" to the effect that the contractor actually did suffer a loss.

Part A - INFORMATION TO BE SUPPLIED BY FEDERAL HIGHWAY ADMINISTRATION OR STATE HIGHWAY PERSONNEL (See PPM-20-2, 20-6.1 and 40-4).

"Final Construction Cost" - Show best estimte of Federal and State costs incurred to date for contract items, extra work performed by contractor, and State-furnished materials.

"Length of Project." - Report official roadway mileage and official bridge mileage.

Part B. - INFORMATION TO BE SUPPLIED BY CONTRACTOR IMMEDIATELY UPON COMPLETION OF CONTRACT

Specific Instructions for the Following Numbered Items:

Item 1 - Report number of barrels of cement used on project. Do not report here the cement included in Item 11.

Items 2 and 92 - Report quantity of aggregates purchased from commercial producers, such as sand, gravel, crushed stone, etc. Do not report here, aggregates included in Items 11 and 12. Aggregates produced by the contractor shall be reported as Item 15 or 95.

Item 3 - Report number of gallons of bitumens such as asphalt and tar. Do not report here, bituminous materials included in Item 12.

Item 4 - Report all lumber products purchased for and used on the project, including plywood and pressed wood, but excluding timber piling, lumber in fencing, guardrail, and signs, and lumber purchased for or used on previous projects and previously reported. The quantity of lumber should be reported as the number of **thousand board feet (MFBM)** and not as the number of board feet (FBM).

Item 5 - Report timber piling in linear feet, regardless of size.

Item 6 - Report, by size, regardless of class, type, gauge or coating, number of linear feet of corrugated steel pipe, structural plate pipe, pipe-arches and arches.

Item 7 - Report total number of pounds of reinforcement for both structures and pavement. Include estimated quantities of reinforcing and prestressing steel in purchased precast units, except concrete pipe reinforcement.

Item 8 - Report total number of pounds of all structural steel, steel H-piling, and sheet piling.

Item 9 - Report total number of gallons of all gasoline, diesel oil, lubricating oil, and grease for equipment and trucks. For conversion purposes use factor of 8 pounds of grease per gallon.

Item 10 - Report total number of pounds of explosives, exclusive of caps and fuses.

Item 11 - Report total number of cubic yards of ready-mixed concrete plus estimated quantity of concrete in purchased precast units, excluding Item 13.

Item 12 - Report total number of tons of bituminous paving mixtures that are purchased in a prepared condition ready for placement as they reach the job.

Item 13 - Report, by size, regardless of class, type, gauge or coating, total number of linear feet of plain and reinforced concrete drain and culvert pipe.

Item 14 - Report, by size, total number of linear feet of clay pipe and drain tile.

Items 15 and 95 - Report total quantity of aggregates such as sand, gravel, crushed stone, etc., produced by the contractor.

Item 16 - Report estimated total weight of steel products not appropriate for Items 6, 7, and 8, such as joint devices, tubular piling, etc.

Items 17, 18 and 19 - Report total lengths, in linear feet, of all types of fencing, guardrail and bridge rail.*

Item 22 - This should be the total cost, at the jobsite, of all construction materials and supplies purchased for and used on the project, including the cost of materials for signing and lighting and, the cost of any materials and supplies not specifically listed hereon. Costs of equipment or equipment rental and the cost of operating the equipment, except the costs of fuel and lubricants, should not be included in this item. Small items of equipment such as jackhammers, handtools, repair parts, tires, etc., are not considered to be supplies. Costs of such items and also overhead costs should not be included. The amount included here for aggregates produced should be only the cost paid by the contractor for the aggregates and should not include the costs of excavating, processing, loading and hauling. Wages and man-hours for aggregates produced should, of course, be included with item 30.

Item 23 - Report final contract amount for all types of signs including foundations, posts, structural supports, etc. Do not include traffic signals.*

Item 24 - Report final contract amount for highway and bridge lighting including foundations, conduits, standards, wiring, switches, luminaires, etc. Do not include traffic signals.*

Item 25 - Report, by size, number of linear feet of corrugated aluminum culvert.

Item 26 - Report, by size, number of linear feet of cast iron pipe.

Item 30 - Report total man-hours worked by, and earnings of all contractor's employees on the project, including those on operation and maintenance of equipment.

*Quantities of steel, concrete and lumber used in connection with Items 17, 18, 19, 23 and 24 should not be reported unless difficulties are encountered in segregating such quantities from total quantities.

GPO 925-947

FORM PR-47 (REV. 3-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

BUDGET BUREAU NO. 41-R2274
APPROVAL EXPIRES SEPTEMBER 1, 1972

STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS

(PPM 20-2 and PPM 40-4)

STATE Oregon
STATE CODE _____ [1]

COUNTY Multnomah (U)[2]

FEDERAL PROJECT NO. I-405-8(22)304

PART A *(To be completed by Bureau of Public Roads or State Highway personnel - See instructions on reverse)*

ITEM		ROADWAY	BRIDGES (Over 20 ft.)	DATE STARTED
	CONSTRUCTION TYPE CODE			9-22-69
20	FINAL CONSTRUCTION COST	$ 131,934	$	DATE COMPLETED 3-5-70
21	LENGTH OF PROJECT	- MI.	MI.	TOTAL NO. BRIDGES

PART B *(To be completed by contractor - See instructions on reverse)*

ITEM	MATERIALS AND SUPPLIES	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY
1	CEMENT	BBL.	23	
2	AGGREGATES PURCHASED	~~TON~~ / CU. YD.	661	
3	BITUMINOUS MATERIAL	GAL.		
4	LUMBER	MFBM	3	
5	TIMBER PILING	LIN. FT.		
7	REINFORCING STEEL	LB.	8,073	
8	STRUCTURAL STEEL	LB.		
11	READY-MIXED CONCRETE	CU. YD.	212	
12	PREMIXED BITUMINOUS PAVING MATERIALS	TON	177	
15	AGGREGATES PRODUCED	TON[3] / CU. YD.		
16	MISCELLANEOUS STEEL	LB.	24,564	
17	FENCING	LIN. FT.		
18	GUARDRAIL	LIN. FT.		
19	BRIDGE RAIL	LIN. FT.		
9	PETROLEUM PRODUCTS	GAL.		
10	EXPLOSIVES	LB.		
22	TOTAL COST OF ALL MATERIALS AND SUPPLIES	DOL.	43,702	
23	FINAL CONTRACT AMOUNT FOR SIGNS	DOL.		
24	FINAL CONTRACT AMOUNT FOR LIGHTING	DOL.		

ITEM		TOTAL MAN HOURS	GROSS EARNINGS
30	LABOR	5,855	34,156

CULVERT ITEMS

ITEM	SIZE (Inches)	LENGTH (Lin. ft.)
6	CORRUGATED STEEL CULVERT	
13	CONCRETE PIPE	
	4	626
	6	345
	8	217
14	CLAY PIPE AND DRAIN TILE	
25	CORR. ALUMINUM CULVERT	
26	CAST IRON PIPE	
	2	~~210~~
	3	~~125~~
	4	~~320~~
	6	360

[1]By BPR. [2]Insert "U" or "R" for Urban or Rural. [3]Strike out unit not applicable.

EDITION OF 9-66 MAY BE USED (Remarks: Attach plain sheet of paper)

USCOMM-DC 15941-P67

INSTRUCTIONS FOR PREPARING AND TRANSMITTING FORM PR-47

GENERAL REQUIREMENTS

Form PR-47 should be transmitted for each highway construction project involving Federal funds except those that consist primarily of the installation of protective devices at railroad grade crossings, those that are constructed on a force account or direct labor basis, Federal-aid Secondary projects, and highway work under the direct supervision of the Bureau of Public Roads.

Form PR-47 should be transmitted with or in advance of the Final Report required by Policy and Procedure Memorandum 20-6.1.

A separate form should be transmitted for each contract except that data for two or more contracts on the same project may be combined when such contracts are completed at approximately the same time. In case of a combination, the earliest starting date and the latest completion date should be reported. Where a single contract covers more than one project, only one form should be prepared. A Form PR-47 should not be prepared for a contract covering only the purchase of material but the quantity of material should be reported when subsequently included in a construction project. In all cases, **only the original** of Form PR-47, typed or clearly lettered, and **no carbon or "fast" copies**, should be transmitted to the Washington Office.

If nonparticipating work is included in the contract, all data should be combined with the Federal-aid data in preparing the form. Data for any subcontract should be combined by the State or the division office with that for the prime contract if not so combined by the prime contractor. Quantities of State-furnished materials should be included with contract quantities, and costs of State-furnished materials should be added to Item 20 "Final Construction Cost" and also to Item 22 "Total Cost of All Materials and Supplies". **All quantities should be reported to the nearest whole unit and only in the units specified. All costs should be reported to the nearest dollar.**

The letter "U" or "R" respectively, is to be inserted at the top of the form immediately following the name of the county to indicate whether the major cost is for work within an urban area, or in a rural location.

All figures should be verified for reasonableness by State highway department and Public Roads division office engineers. The total material cost and the total man-hours and gross earnings should bear reasonable relationships to the contract construction amount. Also the quantity of each material reported should be reasonable with respect to the size and nature of the contract and with respect to the quantities of other materials. For example, if a large quantity of reinforcing steel is reported with no cement or ready-mixed concrete, an error or omission in reporting would be indicated.

Average figures for all of these relationships are shown in Tables PT-2a and PT-4 of HIGHWAY STATISTICS, in the published tabulations of highway construction material usage factors, and in an article on highway construction labor in PUBLIC ROADS volume 28, No. 6, February 1957.

Generally, the total cost of materials, supplies, and labor should be substantially less than the final construction cost, as the latter also includes costs of equipment ownership, overhead, and profit which are not required to be reported. If the final construction cost is less or only a few percent more than the total cost of materials, supplies and labor, the indication is that the contractor suffered a loss on the project or that there is an error in reporting. In such case, if it is determined that the figures reported are correct, a statement should be made under "Remarks" to the effect that the contractor actually did suffer a loss.

Part A - INFORMATION TO BE SUPPLIED BY BUREAU OF PUBLIC ROADS OR STATE HIGHWAY PERSONNEL (See PPM-20-2, 20-6.1 and 40-4).

"Final Construction Cost" - Show best estimate of Federal and State costs incurred to date for contract items, extra work performed by contractor, and State-furnished materials.

"Length of Project." - Report official roadway mileage and official bridge mileage.

Part B - INFORMATION TO BE SUPPLIED BY CONTRACTOR IMMEDIATELY UPON COMPLETION OF CONTRACT

Specific Instructions for the Following Numbered Items:

Item 1 - Report number of barrels of cement used on project. Do not report here the cement included in Item 11.

Item 2 - Report quantity of aggregates purchased from commercial producers, such as sand, gravel, crushed stone, etc. Do not report here, aggregates included in Items 11 and 12. Aggregates produced by the contractor shall be reported as Item 15.

Item 3 - Report number of gallons of bitumens such as asphalt and tar. Do not report here, bituminous materials included in Item 12.

Item 4 - Report all lumber products purchased for and used on the project, including plywood and pressed wood, but excluding timber piling, lumber in fencing, guardrail, and signs, and lumber purchased for or used on previous projects and previously reported. The quantity of lumber should be reported as the number of **thousand board feet (MFBM)** and not as the number of board feet (FBM).

Item 5 - Report timber piling in linear feet, regardless of size.

Item 6 - Report, by size, number of linear feet of corrugated steel pipe, structural plate pipe, pipe-arches and arches.

Item 7 - Report total number of pounds of reinforcement for both structures and pavement. Include estimated quantities of reinforcing and prestressing steel in purchased precast units, except concrete pipe reinforcement.

Item 8 - Report total number of pounds of all structural steel, steel H-piling, and sheet piling.

Item 9 - Report total number of gallons of all gasoline, diesel oil, lubricating oil, and grease for equipment and trucks. For conversion purposes use factor of 8 pounds of grease per gallon. On projects consisting of fencing, signing, or lighting only, comparatively small quantities of fuel and lubricants used need not be reported.

Item 10 - Report total number of pounds of explosives, exclusive of caps and fuses.

Item 11 - Report total number of cubic yards of ready-mixed concrete plus estimated quantity of concrete in purchased precast units, excluding Item 13.

Item 12 - Report total number of tons of bituminous paving mixtures that are purchased in a prepared condition ready for placement as they reach the job.

Item 13 - Report, by size, total number of linear feet of plain and reinforced concrete drain and culvert pipe.

Item 14 - Report, by size, total number of linear feet of clay pipe and drain tile.

Item 15 - Report total quantity of aggregates such as sand, gravel, crushed stone, etc., produced by the contractor.

Item 16 - Report estimated total weight of steel products not appropriate for Items 6, 7, and 8, such as joint devices, tubular piling, etc.

Items 17, 18 and 19 - Report total lengths, in linear feet, of all types of fencing, guardrail and bridge rail.*

Item 22 - This should be the total cost, at the jobsite, of all construction materials and supplies purchased for and used on the project, including the cost of materials for signing and lighting and the cost of any materials and supplies not specifically listed hereon. Costs of equipment or equipment rental and the cost of operating the equipment, except the costs of fuel and lubricants, should not be included in this item. Small items of equipment such as jackhammers, handtools, repair parts, tires, etc., are not considered to be supplies. Costs of such items and also overhead costs should not be included. The amount included here for aggregates produced should be only the cost paid by the contractor for the aggregates and should not include the costs of excavating, processing, loading and hauling. Wages and man-hours for aggregates produced should, of course, be included with item 30.

Item 23 - Report final contract amount for all types of signs and delineators including foundations, posts, structural supports, etc. Do not include traffic signals.*

Item 24 - Report final contract amount for highway and bridge lighting including foundations, conduits, standards, wiring, switches, luminaires, etc. Do not include traffic signals.*

Item 25 - Report, by size, number of linear feet of corrugated aluminum culvert.

Item 26 - Report, by size, number of linear feet of cast iron pipe.

Item 30 - Report total man-hours worked by, and earnings of all contractor's employees on the project, including those on operation and maintenance of equipment.

*Steel, concrete and lumber used in connection with Items 17, 18, 19, 23 and 24 should not be reported unless difficulties are encountered in segregating such quantities from total quantities.

7310

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	Form Approved; O M B No. 04-R2089
MONTHLY TRANSACTION NUMBER		State: Oregon
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County: Multnomah
MODIFICATION NUMBER: 6	1-27-77	Project Number: I-405-8(22)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on September 25, 19 69, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 14,337,084	$ 14,848,716
Federal funds	$ 13,225,900	$ 13,697,880
Other revisions		

This modification is made for the following reasons:

To include final claim settlement and litigation expense.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 27th day of January, 1977.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By E J Hunter

Deputy State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)
for: G. L. Green

Form FR-2A
(Rev. 10-75)

Previous editions are obsolete

16717

Oregon State Highway Division
Salem, Oregon January 25, 1977

Federal Aid Project
No. I-405-8(22)304

E. Fremont Interchange Section (Unit A)
Stadium Freeway In Multnomah County

Revised Project Agreement Estimate.

Type Code X971
Structure (No. 8958-1)(Sta. "EW" 332+57 to Sta. "FB" 346+20.5)(Contract 7310)

Subtotal on previous estimate of February 24, 1976		$13,422,903.89
Additional Approved Items		
Final Contract Claim Settlement	Lump Sum (57%)	450,870.00
SFO 22 Work Required for Litigation	All Required (57%)	60,762.00
	Increase	$ 511,632.00
	Subtotal	13,934,535.89
	Engineering	777,096.11
	Total	$14,711,632.00

Length of Structure - - - - - - 0.258 mile

Type Code Y040
Building Clearance (Sta. 341+00)(Contract 7298)
Yardman Locker Building
Total same as previous estimate of February 24, 1976 $ 137,084.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Structure	$14,711,632.00	$13,571,480.00	$1,140,152.00
Building Clearance	137,084.00	126,400.00	10,684.00
Total	$14,848,716.00	$13,697,880.00	$1,150,836.00

Group 1 - 100%
Prefix: 626-1017
Contract No.: 7310

Group 1 - 100%
Prefix: 626-1023
Contract No.: 7298

7310

STATE COPY

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	Form Approved; O M B No. 04-R2089
MONTHLY TRANSACTION NUMBER 3-38		State Oregon
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT 3-1-76	County Multnomah
MODIFICATION NUMBER 6		Project Number I-405-8(22)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on September 25, 19 69, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 14,182,590	$ 14,337,084
Federal funds	$ 13,083,379	$ 13,225,900
Other revisions		

This modification is made for the following reasons:

To include additional approved items and increase in construction engineering.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 1st day of March, 19 76.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By E S Hunter

Assistant State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)
For: G. L. Green

Form PR-2A
(Rev. 10-75)

Previous editions are obsolete

GPO 895-813

Oregon State Highway Division
Salem, Oregon, February 24, 1976

Federal Aid Project
No. I-405-8(22)304

E. Fremont Interchange Section (Unit A)
Stadium Freeway in Multnomah County

Revised Project Agreement Estimate.

Type Code X971
Structure (No. 8958-1)(Sta. "EW" 332+57 to Sta. "FB" 346+20.5)(Contract No. 7310)

Subtotal on previous estimate of January 11, 1974		$13,419,317.41
Additional Approved Items		
EWO 5 Replace Concrete Pavement	All Required	$ 1,033.56
EWO 8 Drain Steam Pit	All Required	458.67
EWO 11 Grout Anchor Bolts	All Required	427.53
EWO 13 Install Steel Posts	All Required	191.10
EWO 15 Luminaires and Lamps	All Required	684.83
EWO 18 Seed and Mulch Slope	All Required	341.00
EWO 20 Install Anti-Freeze in Impact Attenuators	All Required	449.79
	Increase	$ 3,586.48
	Subtotal	$13,422,903.89
	Engineering	777,096.11
	Total	$14,200,000.00
Length of Structure - - - - - - - - - - -	0.258 Mile	

Type Code Y040
Building Clearance (Sta. 341+00)(Contract No. 7298)
Yardman Locker Building

Total same as previous estimate of January 11, 1974	$ 137,084.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Structure	$14,200,000.00	$13,099,500.00	$ 1,100,500.00
Building Clearance	137,084.00	126,400.00	10,684.00
Total	$14,337,084.00	$13,225,900.00	$ 1,111,184.00

Group 1	100%
Prefix	626-1017
Contract No.	7310

Group 1	100%
Prefix	626-1023
Contract No.	7298

7310

STATE COPY

MONTHLY TRANSACTION NUMBER 1-55	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	STATE Oregon
PROJECT REPORT NUMBER 20	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	COUNTY Multnomah
MODIFICATION NUMBER 4	(PPM 21-7) 1-17-74	PROJECT NUMBER I-405-8(22)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 25, 19 69, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 14,139,929	$ 14,182,590
Federal Funds	$ 13,044,000	$ 13,083,379
Other revisions		

This modification is made for the following reasons:

To include increase in cost as a result of approved price agreements, extra work orders and state force orders

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 17th day of January, 19 74.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By E T Schmitz

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By D. V. Smith for E. W. Green
(Division Engineer) VERNON V. CUSACK
Acting Division Engineer

Form PR-2A (Rev. 5-71) Existing stocks of Form PR-2A (Rev. 4-70) will be used. GPO 915-669

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(22)304

E. FREMONT INTERCHANGE SECTION (UNIT "A") OF THE

STADIUM FREEWAY IN MULTNOMAH COUNTY

Salem, Oregon, January 11, 1974

Revised Project Agreement Estimate.

Type Code X971
Structure (No. 8958-1) (Sta. "EW" 332+57 to Sta. "FB" 3 346+20.5) (Contract No. 7310)

Roadwork

Temporary Protection and Direction of Traffic	All	Required		$ 9,398.00
Clearing and Grubbing	All	Required		274,268.00
General Excavation, Unclassified	All	Required		1,681.00
Trench Excavation	1,860	cu.yd.	6.00	11,160.00
Pavement Replacement	160	lin.ft.	10.00	1,600.00
Stone Base	190	cu.yd.	5.50	1,045.00
Plant Mixed Bituminous Base	340	ton	10.80	3,672.00
Class "B" Asphalt Concrete	170	ton	10.80	1,836.00
8-inch Storm Sewer Pipe	660	lin.ft.	3.00	1,980.00
12-inch Storm Sewer Pipe	700	lin.ft.	5.00	3,500.00
21-inch Storm Sewer Pipe	340	lin.ft.	10.00	3,400.00
12-inch Sanitary Sewer Pipe	460	lin.ft.	6.00	2,760.00
24-inch Sanitary Sewer Pipe	160	lin.ft.	11.00	1,760.00
Extra for Pipe Under Interstate Ave.	All	Required		7,500.00
Concrete Manholes	10	only	600.00	6,000.00
Step Manholes	1	only	3,000.00	3,000.00
Concrete Inlets, Type "B"	15	only	200.00	3,000.00
Concrete Curbs	13	cu.yd.	87.00	1,131.00
Concrete Walks	44	sq.yd.	9.00	396.00

Structures

Shoring, Cribbing, etc.	All	Required		269,507.00
Structural Excavation	8,000	cu.yd.	3.50	28,000.00
Structural Excavation Below Elevation Shown	700	cu.yd.	3.50	2,450.00
Furnish 14 BP 73 Steel Piling	24,770	lin.ft.	5.70	141,189.00
Drive 14 BP 73 Steel Piles	421	only	117.00	49,257.00
Drive 14 BP 102 Steel Piles	213	only	121.00	25,773.00
Drive 14 BP 117 Steel Piles	63	only	121.00	7,623.00
Splice 14 BP 73 Steel Piles	175	only	35.00	6,125.00
Splice 14 BP 102 Steel Piles	280	only	35.00	9,800.00

Splice 14 BP 117 Steel Piles	70	only	35.00	2,450.00
Drilling Pile Holes	130	lin.ft.	10.00	1,300.00
Class "A" Concrete (19,817 c.y.)	All	Required		1,511,403.00
Reinforcement (4,388,500 lb.)	All	Required		505,975.00
Structural Steel (16,156,000 lb.)	All	Required		10,652,642.00
Gore Point Protection	All	Required	(See PA 17)	
Metal Parapet Railing	8,598	lin.ft.	7.50	64,485.00
8-inch PVC Pipe	3,200	lin.ft.	8.50	27,200.00
Dry Fire Mains	All	Required		10,981.00
Sign Supports for Signs 16, 17 & 18	All	Required		8,400.00
Sign Supports for Signs 19, 20 & 35	All	Required		7,660.00
Sign Supports for Signs 31, 32, 33 & 34	All	Required		4,070.00
Sign Supports on Bridge Railing	All	Required		1,500.00
Sign Supports on Parapet Blister	All	Required		1,150.00
Sign Illumination Equipment	All	Required		5,270.00
Type "A" Signs in Place	1,030	sq.ft.	10.00	10,300.00
Type "D" Signs in Place	124	sg.ft.	6.00	744.00
Type "M" Signs in Place	63	sq.ft.	6.00	378.00
Illumination Installation Complete	All	Required		44,510.00
				$13,739,229.00
Lump Sum Reduction	All	Required		(750,382.02)
				$12,988,846.98
Flagging (60% of Contractor's Cost)	All	Required		$ 10,000.00
Railroad Protective Cost	All	Required		40,000.00
*State-Furnished 14 BP 102 Steel Piling (SFO #1)	9,410.4	lin.ft.	7.00	65,872.80
*State-Furnished 14 BP 117 Steel Piling (SFO #1)	3,962.7	lin.ft.	11.55	45,769.19
Work by UPRR	All	Required		13,660.00
City of Portland (Water)	All	Required		38,766.63
City of Portland (Traffic)	All	Required		1,300.00
PA 5 Additional Pavement Replacement	1,074	lin.ft.	10.00	10,740.00
PA 10 Additional Splice Plates and Bolts	Lump	Sum		42,804.43
PA 10 Offload, Haul, Erect & Paint	21	ton	425.00	8,925.00
PA 10 Credit for Original Erection & Painting	7	ton	425.00	(2,975.00)
PA 11 Modify Deck Expansion Joints	Lump	Sum		12,400.00
**PA 14 Subs. Carbolene Vinyl	12,168	gal.	1.26	15,331.68
**PA 15 Furnish & Install Elect Conductors	All	Required		1,203.77
**PA 15 Conduit Drains	All	Required		82.60
**PA 17 Subs. Gore Paint Protection	All	Required		12,474.00
**PA 20 Repair Latex Paint	All	Required		8,750.00
EWO 2 Backfill Material in Sewers	All	Required		3,836.95
EWO 3 Furnish 14 BP 117 Steel Piling	All	Required		10,170.53

EWO 4 Relocate Footing Pier	All Required		4,401.44
EWO 7 Build up Expansion Joint Welds	All Required		1,194.88
*EWO 9 Field Splice Revision	All Required		39,242.36
*EWO 10 Remove Rust Stain & Paint Flange	All Required		25,360.21
EWO 12 Jack & Grout Masonry Plate	All Required		4,779.46
EWO 14 Linseed Oil Deck Seal	All Required		6,655.00
EWO 16 Modify Flexible Conduit	All Required		4,000.00
EWO 17 Replace Dresser Couplings	All Required		2,011.89
**SFO 3 Stripe North Interstate Ave.	All Required		1,438.71
**SFO 20 Install Lane Buttons	All Required		1,048.80
**SFO 21 Pavement Striping	All Required		1,279.10
			$ 430,524.43
	Subtotal		$13,419,317.41
	Engineering		626,134.59
	Total		$14,045,506.00

* Revised from previous estimate
** New this estimate

Length of Structure - - - - - - - - 0.258 mile

Type Code Y040

Building Clearance (Sta. 341+00) (Contract No. 7298)
Yardman Locker Building

New Yardmen's Locker Building (Alternate "B")	All Required		$ 105,352.00
Demolish and Remove Existing Building	All Required		5,409.00
Extra Concrete	2 cu.yd.	80.00	160.00
Clubhouse Building			
Relocate Clubhouse Building	All Required		16,251.00
			$ 127,172.00
Railroad Share of Building Costs			(7,196.00)
			$ 119,976.00
Flagging (60% of Contractor's Cost)	All Required		$ 100.00
EWO 2 Install Catch Basins	All Required		3,874.19
EWO 3 Furnish and Install Additional Heaters	All Required		672.35
			$ 4,646.54
	Subtotal		$ 124,622.54
	10% Engr. & Cont.		12,461.46
	Total		$ 137,084.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Structure	$14,045,506.00	$12,956,979.00	$1,088,527.00
Building Clearance	137,084.00	126,400.00	10,684.00
Totals	$14,182,590.00	$13,083,379.00	$1,099,211.00

Group 1 - 100%
Prefix: 626-1017

Group 1 - 100%
Prefix: 626-1023

E. FREMONT INTERCHANGE SECTION UNIT "A"

Project I-405-8(22)304

Railroad Protective Cost*

Union Pacific Railroad

Engineer-Inspector for 27 months
Full Flagging Crew for 3 months

Wages			
Engineer-Inspector	27 mos.	$849.00	$22,923.00
Section Forman	22 days x 8 hrs. x 3 mos. x $3.566/hr.		1,882.85
Section Labores (2)	2 x 22 days x 8 hrs. x 3 mos. x $2.889/hr.		3,050.78
34% Payroll Additives			9,471.25
			$37,327.89
State will pay up to			$40,000.00

*Note: This estimate covers all protective costs for Units "A" and "B" ($37,000 for Unit "A") ($3,000 for Unit "B").

Work by U.P.R.R.

Remove Linde Air Spur Track, ED-194,445'		$ 645.00
Install Rails & Cross Ties Displacing Frog & Sw. Ties		590.00
Relay Rail, Track ED-79 59 T.F. 131/90#		680.00
Rehabilitate Track through Crossing		760.00
Reroute Communication Line to Clubhouse at New Location		175.00
Reroute Communication Lines to New Boardroom		1,240.00
Relocate U.G. Comm. Lines to Clear Bridge Piers		3,165.00
Provide Electrical Service to New Boardroom		795.00
Provide Electrical Service to Relocated Clubhouse		2,210.00
Make Permanent Relocation of Electric Power Line to Division Office		3,500.00
Salvage Credit 59' Relay		(100.00)
		$13,660.00

City of Portland (Water Facilities)

Labor		$17,309.75
Material and Paving		16,588.51
Equipment		2,163.72
Overhead		2,704.65
Total Estimated Cost		$38,766.63

City of Portland (Traffic Signals)

Labor		$ 914.94
Material		648.11
Salvage Credit		(382.04)
Overhead		118.09
		$ 1,299.10
	Lump Sum	$ 1,300.00

STATE COPY

5

MONTHLY TRANSACTION NUMBER 14-47	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	STATE Oregon
PROJECT REPORT NUMBER 18	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT (PPM 21-2) 11-17-72	COUNTY Multnomah
MODIFICATION NUMBER 3		PROJECT NUMBER I-405-8(22)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 25, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 13,970,260	$ 14,139,929
Federal Funds	$ 12,876,400	$ 13,044,000
Other revisions		

This modification is made for the following reasons:

To include increase in cost as a result of approved price agreements and extra work orders.

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 17th day of November, 1972.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By E S Hunter

Assistant State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By G L Green
(Division Engineer)

G. L. Green

Form PR-2A (Rev. 5-71) Existing stocks of Form PR-2A (Rev. 4-70) will be used. GPO 915-669

Oregon State Highway Division

Federal Aid Project
No. I-405-8(22)304

E. FREMONT INTERCHANGE SECTION (UNIT "A") OF THE

STADIUM FREEWAY IN MULTNOMAH COUNTY

Salem, Oregon, November 10, 1972

Revised Project Agreement Estimate.

Type Code X971
Structure (No. 8958-1)(Sta. "EW" 332+57 to Sta. "FB"3 346+20.5)(Contract No. 7310)

Roadwork

Temporary Protection and Direction of Traffic	All Required		$ 9,398.00
Clearing and Grubbing	All Required		274,268.00
General Excavation, Unclassified	All Required		1,681.00
Trench Excavation	1,860 cu.yd.	6.00	11,160.00
Pavement Replacement	160 lin.ft.	10.00	1,600.00
Stone Base	190 cu.yd.	5.50	1,045.00
Plant Mixed Bituminous Base	340 ton	10.80	3,672.00
Class "B" Asphalt Concrete	170 ton	10.80	1,836.00
8-inch Storm Sewer Pipe	660 lin.ft.	3.00	1,980.00
12-inch Storm Sewer Pipe	700 lin.ft.	5.00	3,500.00
21-inch Storm Sewer Pipe	340 lin.ft.	10.00	3,400.00
12-inch Sanitary Sewer Pipe	460 lin.ft.	6.00	2,760.00
24-inch Sanitary Sewer Pipe	160 lin.ft.	11.00	1,760.00
Extra for Pipe Under Interstate Ave.	All Required		7,500.00
Concrete Manholes	10 only	600.00	6,000.00
Step Manholes	1 only	3,000.00	3,000.00
Concrete Inlets, Type "B"	15 only	200.00	3,000.00
Concrete Curbs	13 cu.yd.	87.00	1,131.00
Concrete Walks	44 sq.yd.	9.00	396.00

Structures

Shoring, Cribbing, etc.	All Required		269,507.00
Structural Excavation	8,000 cu.yd.	3.50	28,000.00
Structural Excavation Below Elevation Shown	700 cu.yd.	3.50	2,450.00
Furnish 14 BP 73 Steel Piling	24,770 lin.ft.	5.70	141,189.00
Drive 14 BP 73 Steel Piles	421 only	117.00	49,257.00
Drive 14 BP 102 Steel Piles	213 only	121.00	25,773.00
Drive 14 BP 117 Steel Piles	63 only	121.00	7,623.00
Splice 14 BP 73 Steel Piles	175 only	35.00	6,125.00
Splice 14 BP 102 Steel Piles	280 only	35.00	9,800.00

Splice 14 BP 117 Steel Piles	70	only	35.00	2,450.00
Drilling Pile Holes	130	lin.ft.	10.00	1,300.00
Class "A" Concrete (19,817 c.y.)	All	Required		1,511.403.00
Reinforcement (4,388,500 lb.)	All	Required		505,975.00
Structural Steel (16,156,000 lb.)	All	Required		10,652,642.00
Gore Point Protection	All	Required		6,140.00
Metal Parapet Railing	8,598	lin.ft.	7.50	64,485.00
8-inch PVC Pipe	3,200	lin.ft.	8.50	27,200.00
Dry Fire Mains	All	Required		10,981.00
Sign Supports for Signs 16, 17 & 18	All	Required		8,400.00
Sign Supports for Signs 19, 20 & 35	All	Required		7,660.00
Sign Supports for Signs 31, 32, 33, & 34	All	Required		4,070.00
Sign Supports on Bridge Railing	All	Required		1,500.00
Sign Supports on Parapet Blister	All	Required		1,150.00
Sign Illumination Equipment	All	Required		5,270.00
Type "A" Signs in Place	1,030	sq.ft.	10.00	10,300.00
Type "D" Signs in Place	124	sq.ft.	6.00	744.00
Type "M" Signs in Place	63	sq.ft.	6.00	378.00
Illumination Installation Complete	All	Required		44,510.00
				$13,745,369.00
Lump Sum Reduction	All	Required		(750,382.02)
				$12,994,986.98
Flagging (60% of Contractor's Cost)	All	Required		$ 10,000.00
Railroad Protective Cost	All	Required		40,000.00
State-Furnished 14 BP 102 Steel Piling	9,175	lin.ft.	7.00	64,225.00
State-Furnished 14 BP 117 Steel Piling	3,818.4	lin.ft.	11.55	44,102.52
Work by UPRR	All	Required		13,660.00
City of Portland (Water)	All	Required		38,766.63
City of Portland (Traffic)	All	Required		1,300.00
PA 5 Additional Pavement Replacement	1,074	lin.ft.	10.00	10,740.00
PA 10 Additional Splice Plates and Bolts	Lump	Sum		42,804.43
PA 10 Offload, Haul, Erect & Paint	21	ton	425.00	8,925.00
PA 10 Credit for Original Erection & Painting	7	ton	425.00	(2,975.00)
PA 11 Modify Deck Expansion Joints	Lump	Sum		12,400.00
EWO 2 Backfill Material in Sewers	All	Required		3,836.95
EWO 3 Furnish 14 BP 117 Steel Piling	All	Required		10,170.53
EWO 4 Relocate Footing Pier	All	Required		4,401.44
EWO 7 Build up Expansion Joint Welds	All	Required		1,194.88
EWO 9 Field Splice Revision	All	Required		38,827.67
EWO 10 Remove Rust Stain & Paint Flange	All	Required		21,896.63
EWO 12 Jack & Grout Masonry Plate	All	Required		4,779.46

EWO 14 Linseed Oil Deck Seal	All Required		6,655.00
EWO 16 Modify Flexible Conduit	All Required		4,000.00
EWO 17 Replace Dresser Couplings	All Required		2,011.89
			$ 381,723.03
	Subtotal		$13,376,710.01
	Engr.		626,134.99
	Total		$14,002,845.00

Length of Structure - - - 0.258 mile

Type Code Y040
Building Clearance (Sta. 341+00) (Contract No. 7298)
Yardman Locker Building

New Yardmen's Locker Building (Alternate "B")	All Required		$ 105,352.00
Demolish and Remove Existing Building	All Required		5,409.00
Extra Concrete	2 cu.yd.	80.00	160.00

Clubhouse Building

Relocate Clubhouse Building	All Required		16,251.00
			$ 127,172.00
Railroad Share of Building Costs			(7,196.00)
			$ 119,976.00
Flagging (60% of Contractor's Costs)	All Required		$ 100.00
EWO 2 Install Catch Basins	All Required		3,874.19
EWO 3 Furnish and Install Additional Heaters	All Required		672.35
			$ 4,646.54
	Subtotal		$ 124,622.54
	10% Engr. & Cont.		12,461.46
	Total		$ 137,084.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Structure	$14,002,845.00	$12,917,600.00	$1,085,245.00
Building Clearance	137,084.00	126,400.00	10,684.00
Totals	$14,139,929.00	$13,044,000.00	$1,095,929.00

Group 1 - 100%
Prefix: 626-1017

Group 1 - 100%
Prefix: 626-1023

E. Fremont Interchange Section Unit "A"

Project I-405-8(22)304

Railroad Protective Cost*

Union Pacific Railroad

Engineer-Inspector for 27 months
Full Flagging Crew for 3 months

Wages			
Engineer-Inspector	27 mos.	$849.00	$22,923.00
Section Foreman	22 days x 8 hrs. x 3 mos. x $3.566/hr.		1,882.85
Section Laborers (2)	2 x 22 days x 8 hrs. x 3 mos. x $2.889/hr.		3,050.78
34% Payroll Additives			9,471.25
			$37,327.89
State will pay up to			$40,000.00

*Note: This estimate covers all protective costs for Units "A" and "B" ($37,000 for Unit "A") ($3,000 for Unit "B").

Work by U.P.R.R.

Remove Linde Air Spur Track, ED-194,445'		$ 645.00
Install Rails & Cross Ties Displacing Frog & Sw. Ties		590.00
Relay Rail, Track ED-79 59 T.F. 131/90#		680.00
Rehabilitate Track through Crossing		760.00
Reroute Communication Line to Clubhouse at New Location		175.00
Reroute Communication Lines to New Boardroom		1,240.00
Relocate U.G. Comm. Lines to Clear Bridge Piers		3,165.00
Provide Electrical Service to New Boardroom		795.00
Provide Electrical Service to Relocated Clubhouse		2,210.00
Make Permanent Relocation of Electric Power Line to Division Office		3,500.00
Salvage Credit 59' Relay		(100.00)
		$13,660.00

City of Portland (Water Facilities)

Labor	$17,309.75
Material and Paving	16,588.51
Equipment	2,163.72
Overhead	2,704.65
Total Estimated Cost	$38,766.63

City of Portland (Traffic Signals)

Labor		$ 914.94
Material		648.11
Salvage Credit		(382.04)
Overhead		118.09
		$ 1,299.10
	Lump Sum	$ 1,300.00

STATE COPY

Monthly transaction number: 7-40	FORM PR-21A (Rev. 10-68) U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION BUREAU OF PUBLIC ROADS	State: Oregon
Project report number: 18	**MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT** (PPM 21-7) 7-21-70	County: Multnomah
Modification number: 2		Project number: I-405-8(22)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 25, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 13,963,959	$ 13,970,260
Federal funds	$ 12,871,800	$ 12,876,400
Other revisions		

This modification is made for the following reasons:

To include approved work by the City of Portland Traffic Bureau and increase in cost of building Contract 7298 by approved Extra Work Orders.

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 21st day of July, 19 70.

Oregon State Highway Division
(Official name of Highway Department)

By _____

Assistant State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)

for R. E. Simpson

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(22)304

E. FREMONT INTERCHANGE SECTION (UNIT "A") OF THE

STADIUM FREEWAY IN MULTNOMAH COUNTY

SALEM, OREGON, JULY 16, 1970

Revised Project Agreement Estimate.

Type Code X971
Structure (No. 8958-1)(Sta. "EW" 332+57 to Sta. "FB"3 346+20.5)(Contract No. 7310)

Roadwork

Temporary Protection and Direction of Traffic	All	Required		$ 9,398.00
Clearing and Grubbing	All	Required		274,268.00
General Excavation, Unclassified	All	Required		1,681.00
Trench Excavation	1,860	cu.yd.	6.00	11,160.00
Pavement Replacement	160	lin.ft.	10.00	1,600.00
Stone Base	190	cu.yd.	5.50	1,045.00
Plant Mixed Bituminous Base	340	ton	10.80	3,672.00
Class "B" Asphalt Concrete	170	ton	10.80	1,836.00
8-inch Storm Sewer Pipe	660	lin.ft.	3.00	1,980.00
12-inch Storm Sewer Pipe	700	lin.ft.	5.00	3,500.00
21-inch Storm Sewer Pipe	340	lin.ft.	10.00	3,400.00
12-inch Sanitary Sewer Pipe	460	lin.ft.	6.00	2,760.00
24-inch Sanitary Sewer Pipe	160	lin.ft.	11.00	1,760.00
Extra for Pipe under Interstate Ave.	All	Required		7,500.00
Concrete Manholes	10	only	600.00	6,000.00
Step Manholes	1	only	3,000.00	3,000.00
Concrete Inlets, Type "B"	15	only	200.00	3,000.00
Concrete Curbs	13	cu.yd.	87.00	1,131.00
Concrete Walks	44	sq.yd.	9.00	396.00

Structures

Shoring, Cribbing, etc.	All	Required		269,507.00
Structural Excavation	8,000	cu.yd.	3.50	28,000.00
Structural Excavation Below Elevation Shown	700	cu.yd.	3.50	2,450.00
Furnish 14 BP 73 Steel Piling	24,770	lin.ft.	5.70	141,189.00
Drive 14 BP 73 Steel Piles	421	only	117.00	49,257.00
Drive 14 BP 102 Steel Piles	213	only	121.00	25,773.00
Drive 14 BP 117 Steel Piles	63	only	121.00	7,623.00
Splice 14 BP 73 Steel Piles	175	only	35.00	6,125.00
Splice 14 BP 102 Steel Piles	280	only	35.00	9,800.00
Splice 14 BP 117 Steel Piles	70	only	35.00	2,450.00

Drilling Pile Holes	130 lin.ft.	10.00	$ 1,300.00
Class "A" Concrete (19,817 c.y.)	All Required		1,511,403.00
Reinforcement (4,388,500 lb.)	All Required		505,975.00
Structural Steel (16,156,000 lb.)	All Required		10,652,642.00
Gore Point Protection	All Required		6,140.00
Metal Parapet Railing	8,598 lin.ft.	7.50	64,485.00
8-inch PVC Pipe	3,200 lin.ft.	8.50	27,200.00
Dry Fire Mains	All Required		10,981.00
Sign Supports for Signs 16, 17 & 18	All Required		8,400.00
Sign Supports for Signs 19, 20 & 35	All Required		7,660.00
Sign Supports for Signs 31, 32, 33, & 34	All Required		4,070.00
Sign Supports on Bridge Railing	All Required		1,500.00
Sign Supports on Parapet Blister	All Required		1,150.00
Sign Illumination Equipment	All Required		5,270.00
Type "A" Signs in Place	1,030 sq.ft.	10.00	10,300.00
Type "D" Signs in Place	124 sq.ft.	6.00	744.00
Type "M" Signs in Place	63 sq.ft.	6.00	378.00
Illumination Installation Complete	All Required		44,510.00
			$13,745,369.00
Lump Sum Reduction	All Required		(750,382.02)
			$12,994,986.98

Flagging (60% of contractor's cost)	All Required		$ 10,000.00
Railroad Protective Cost	All Required		40,000.00
State-Furnished 14 BP 102 Steel Piling	9,175 lin.ft.	7.00	64,225.00
State-Furnished 14 BP 117 Steel Piling	3,818.4 lin.ft.	11.55	44,102.52
Work by UPRR	All Required		13,660.00
City of Portland (water)	All Required		38,766.63
City of Portland (traffic)	All Required		1,300.00
			$ 212,054.15
	Subtotal		$13,207,041.13
	Engineering		626,134.87
	Total		$13,833,176.00

Length of Structure - - 0.258 mile

Type Code Y040
Building Clearance (Sta. 341+00)(Contract No. 7298)
Yardman Locker Building

New Yardmen's Locker Building (Alternate "B")	All Required		$ 105,352.00
Demolish and Remove Existing Building	All Required		5,409.00

Extra Concrete	2 cu.yd.	80.00	$ 160.00
Club House Building			
Relocate Club House Building	All Required		16,251.00
			$ 127,172.00
Railroad Share of Building Costs			(7,196.00)
			$ 119,976.00
Flagging (60% of Contractor's Costs)	All Required		$ 100.00
EWO 2 Install Catch Basins	All Required		3,874.19
EWO 3 Furnish and Install Additional Heaters	All Required		672.35
			$ 4,646.54
	Subtotal		$ 124,622.54
	10% Engr. & Cont.		12,461.46
	Total		$ 137,084.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Structure	$13,833,176.00	$12,750,000.00	$1,083,176.00
Building Clearance	137,084.00	126,400.00	10,684.00
Totals	$13,970,260.00	$12,876,400.00	$1,093,860.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.

State Funds for Maint.: Chap. 529, Laws 1939.

Group 1 - 100%
Prefix: 626-1017

Group 1 - 100%
Prefix: 626-1023

E. Fremont Interchange Section Unit "A"

Project I-405-8(22)304

Railroad Protective Cost*

Union Pacific Railroad

Engineer-Inspector for 27 months
Full Flagging Crew for 3 months

Wages			
Engineer-Inspector	27 mos.	$849.00	$22,923.00
Section Foreman	22 days x 8 hrs. x 3 mos. x $3.566/hr.		1,882.85
Section Laborers (2)	2 x 22 days x 8 hrs. x 3 mos. x $2.889/hr.		3,050.78
34% Payroll additives			9,471.25
			$37,327.89
State will pay up to			$40,000.00

*Note: This estimate covers all protective costs for Units "A" and "B" ($37,000 for Unit "A") ($3,000 for Unit "B").

Work by U.P.R.R.

Remove Linde Air Spur Track, ED-194, 445'		$ 645.00
Install Rails & Cross Ties Displacing Frog & Sw. Ties		590.00
Relay Rail, Track ED-79 59 T.F. 131/90#		680.00
Rehabilitate Track through Crossing		760.00
Reroute Communication Line to Clubhouse at New Location		175.00
Reroute Communication Lines to New Boardroom		1,240.00
Relocate U.G. Comm. Lines to Clear Bridge Piers		3,165.00
Provide Electrical Service to New Boardroom		795.00
Provide Electrical Service to Relocated Clubhouse		2,210.00
Make Permanent Relocation of Electric Power Line to Division Office		3,500.00
Salvage Credit 59' Relay		(100.00)
		$13,660.00

City of Portland (Water Facilities)

Labor	$17,309.75
Material and Paving	16,588.51
Equipment	2,163.72
Overhead	2,704.65
Total Estimated Cost	$38,766.63

City of Portland (Traffic Signals)

Labor		$ 914.94
Material		648.11
Salvage Credit		(382.04)
Overhead		118.09
		$ 1,299.10
	Lump Sum	$ 1,300.00

STATE COPY

Approved; Budget Bureau No. 41-R2089.1

MONTHLY, TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-65		Oregon
PROJECT REPORT NO.	**FEDERAL-AID PROJECT AGREEMENT**	COUNTY
7	*(PPM 21-7)* 9-25-69	Multnomah
		PROJECT NO. I-405-8(22)304

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

E. Fremont Interchange Section (Unit "A") of the Stadium Freeway

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	7-16-69	0.258
OTHER *(Specify)*		

FUNDS

Fed Rate 92.25%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 13,276,714.00	$ 12,247,700.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By G. W. Dawson

Assistant State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By H. L. Green
(Division Engineer)

For: R. E. Simpson

Date executed by Division Engineer SEP 25 1969

Oregon State Highway Division

Federal-Aid

Project No. I-405-8(22)304

E. FREMONT INTERCHANGE SECTION (UNIT "A") OF THE

STADIUM FREEWAY IN MULTNOMAH COUNTY

Project Agreement Estimate

Salem, Oregon, September 17, 1969

Type Code X971
Structure (No. 8958-1) (Sta. "EW" 332+57 to Sta. "FB"$_3$ 346+20.5) (Contract No. 7310)

Roadwork

Temporary Protection and Direction of Traffic	All Required		$ 9,398.00
Clearing and Grubbing	All Required		274,268.00
General Excavation, Unclassified	All Required		1,681.00
Trench Excavation	1,860 cu.yd.	6.00	11,160.00
Pavement Replacement	160 lin.ft.	10.00	1,600.00
Stone Base	190 cu.yd.	5.50	1,045.00
Plant Mixed Bituminous Base	340 ton	10.80	3,672.00
Class "B" Asphalt Concrete	170 ton	10.80	1,836.00
8-inch Storm Sewer Pipe	660 lin.ft.	3.00	1,980.00
12-inch Storm Sewer Pipe	700 lin.ft.	5.00	3,500.00
21-inch Storm Sewer Pipe	340 lin.ft.	10.00	3,400.00
12-inch Sanitary Sewer Pipe	460 lin.ft.	6.00	2,760.00
24-inch Sanitary Sewer Pipe	160 lin.ft.	11.00	1,760.00
Extra for Pipe under Interstate Ave.	All Required		7,500.00
Concrete Manholes	10 only	600.00	6,000.00
Step Manholes	1 only	3,000.00	3,000.00
Concrete Inlets, Type "B"	15 only	200.00	3,000.00
Concrete Curbs	13 cu.yd.	87.00	1,131.00
Concrete Walks	44 sq.yd.	9.00	396.00

Structures

Shoring, Cribbing, etc.	All Required		269,507.00
Structural Excavation	8,000 cu.yd.	3.50	28,000.00
Structural Excavation Below Elevation Shown	700 cu.yd.	4.00	2,450.00
Furnish 14 BP 73 Steel Piling	24,770 lin.ft.	5.70	141,189.00
Drive 14 BP 73 Steel Piles	421 only	117.00	49,257.00
Drive 14 BP 102 Steel Piles	213 only	121.00	25,773.00
Drive 14 BP 117 Steel Piles	63 only	121.00	7,623.00
Splice 14 BP 73 Steel Piles	175 only	35.00	6,125.00
Splice 14 BP 102 Steel Piles	280 only	35.00	9,800.00
Splice 14 BP 117 Steel Piles	70 only	35.00	2,450.00
Drilling Pile Holes	130 lin.ft.	10.00	1,300.00

Class "A" Concrete (19,817 c.y.)	All Required		$ 1,511,403.00
Reinforcement (4,388,500 lb.)	All Required		505,975.00
Structural Steel (16,156,000 lb.)	All Required		10,652,642.00
Gore Point Protection	All Required		6,140.00
Metal Parapet Railing	8,598 lin.ft.	7.50	64,485.00
8-inch PVC Pipe	3,200 lin.ft.	8.50	27,200.00
Dry Fire Mains	All Required		10,981.00
Sign Supports for Signs 16, 17 & 18	All Required		8,400.00
Sign Supports for Signs 19, 20 & 35	All Required		7,660.00
Sign Supports for Signs 31, 32, 33, & 34	All Required		4,070.00
Sign Supports on Bridge Railing	All Required		1,500.00
Sign Supports on Parapet Blister	All Required		1,150.00
Sign Illumination Equipment	All Required		5,270.00
Type "A" Signs in Place	1,030 sq.ft.	10.00	10,300.00
Type "D" Signs in Place	124 sq.ft.	6.00	744.00
Type "M" Signs in Place	63 sq.ft.	6.00	378.00
Illumination Installation Complete	All Required		44,510.00
			$13,745,369.00
Lump Sum Reduction	All Required		(1,385,000.00)
			$12,360,369.00
Flagging (60% of contractor's cost)	All Required		10,000.00
Railroad Protective Cost	All Required		40,000.00
State Furnished 14 BP 102 Steel Piling	9,175 lin.ft.	7.00	64,225.00
State Furnished 14 BP 117 Steel Piling	3,818.4 lin.ft.	11.55	44,102.52
			158,327.52
	Subtotal		12,518,696.52
	Engineering		625,934.48
	Total		$13,144,631.00

Length of Structure - - 0.258 mile

Type Code Y040

Building Clearance (Sta. 341+00)(Contract No. 7298)
Yardman Locker Building

New Yardmen's Locker Building (Alternate "B")	All Required		$ 105,352.00
Demolish and Remove Existing Building	All Required		5,409.00
Extra Concrete	2 cu.yd.	80.00	160.00

Club House Building

Relocate Club House Building	All Required		16,251.00
			$ 127,172.00
Railroad Share of Building Costs			(7,196.00)
			$ 119,976.00

Flagging (60% of Contractor's Costs)	All Required	100.00
		$ 120,076.00
	10% Engr. & Cont.	12,007.00
	Total	$ 132,083.00

Retained in Program Status (Structure Contract)

Work by City of Portland Water Bureau	All Required	$ 100,000.00
Construct Guard Rail	All Required	150.00
Work by UPRR	All Required	10,000.00
Remove Res. Engr. Bldg.	All Required	2,000.00
	Subtotal	$ 112,150.00
	10% Engr. & Cont.	11,215.00
	Total	$ 123,365.00

Summary of Funds

Description	Total Cost	Federal Funds	State Funds
Structure	$13,144,631.00	$12,125,900.00	$1,018,731.00
Building Clearance	132,083.00	121,800.00	10,283.00
Subtotal	$13,276,714.00	$12,247,700.00	$1,029,014.00
Retained in Program	123,365.00	113,800.00	9,565.00
Totals	$13,400,079.00	$12,361,500.00	$1,038,579.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1 - 100%
Prefix 626-1017
Group 1 - 100%
Prefix 626-1023

E. Fremont Interchange Section Unit "A"

Project I-405-8(22)304

Railroad Protective Cost*

Union Pacific Railroad

Engineer-Inspector for 27 months
Full Flagging Crew for 3 months

Wages			
Engineer-Inspector	27 mos.	$849.00	$22,923.00
Section Foreman	22 days x 8 hrs. x 3 mos. x $3.566/hr.		1,882.85
Section Laborers (2)	2 x 22 days x 8 hrs. x 3 mos. x $2.889/hr.		3,050.78
34% Payroll additives			9,471.25
			$37,327.89
State will pay up to			$40,000.00

*Note: This estimate covers all protective costs for Units "A" and "B" ($37,000 for Unit "A") ($3,000 for Unit "B").

E. Fremont Interchange Section Unit "A"

Project I-405-8(22)304

State Furnished Steel Piling

9,175 lin. ft. of 14 BP 102 Steel Piles over 20 ft.

Contract bid price on Contract 7124 = $7.00 lin.ft.

9,175 lin. ft. x $7.00 = $64,225.00

3,818.4 lin. ft. of 14 BP 117 Steel piles over 20 ft.

These piling purchased on Extra Work Order No. 3 on Contract 7124
Price paid per lin. ft. computed as follows:

Cost to contractor	$6.75 per 100 lbs. less 1/2% discount
Freight Cost	1.87 per cwt.
Contractor's allowance	15%

$6.75 x 117 x 0.005%	= $	7.858 per ft.
1.87 x 117	=	2.188 freight
Subtotal		$ 10.046
15%		1.507
Total		$ 11.553 per ft.

3,818.4 x 11.55 = $44,102.52

NOTED
H. S. COULTER

JAN 13 '77
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

REPORT OF SETTLEMENT OF CASES OTHER THAN CONDEMNATION

File: L- 7121

R-

To be submitted to Commission: January 18, 1977 Approved by Commission:

Name of Case: Donald M. Drake Co., et al v. State of Oregon County: Marion

Cause of Action: For breach of Contract (Fremont Bridge)

Demands of Plaintiff: $2,289,019.65

Settlement: $791,000.00

Contracts Nos. ~~7210~~ 7310, ~~7211~~ 7311, and ~~7212~~ 7312

REMARKS: This action grew out of the contract to construct the East approach to the Fremont Bridge in Portland. During construction, a major failure of the inorganic zinc primer coat resulted in major repair costs and has a substantial impact on other phases of the work. The contractor also encountered major problems in applying the vinyl topcoat due to bubbling and pinholing. The contractor changed to a vinyl from a different supplier. The problems with vinyl also delayed and impacted other phases of the work.

Two other major problems affected the work. It was necessary to redesign certain Ring Girders during progress of the work. Similar problems caused redesign of the expansion joints. These delays also impacted other phases of the work.

After a lengthy examination of the facts, including an extensive examination of the contractor files and records; a thorough review of the pertinent legal principals; an analysis of the contractor's claimed extra costs and prolonged negotiation with the contractor and his attorneys' we have reached a settlement of $791,00.00. This is subject to the approval of the Federal Highway Administration.

(See the legal file for a detailed justification of settlement and analysis of the contractor's costs.)

Leslie B Hampton
Signed

Walter L Barrie
Assistant Attorney General
and Counsel

cc: File
Walter L. Barrie
L. B. Hampton
[illegible]
H. S. Coulter
R. W. Ellison
A. C. Harwood

7310

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 17, 1976

In reply refer to: 1041BR

SUBJECT: Oregon Project I-405-8(22)303
East Fremont Paint Claim

FROM : G. L. Green, Division Administrator

TO Mr. H. S. Coulter, State Highway Engineer

Mr. Hampton's letter of November 19, 1976 requested our review of the claim between Donald M. Drake Co., et al v. State of Oregon East Fremont Interchange Contracts 7210, 7211 and 7212.

7310 7311 7312

We have completed our review and find the entire settlement of $791,000 acceptable for federal participation.

Merry Christmas!

G. L. Green

NOTED
E. S. HUNTER

cc Skoog
Keasey
Bullen
Bridge
Boatman
Region I
12-22-76

cy Coulter 12-21-76

RECEIVED
STATE HWY ENGR
DEC 20 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

7310

DATE: December 9, 1976

TO: Oregon Transportation Commission

FROM:
H. S. Coulter
State Highway Engineer

SUBJECT: Claim Settlement
East Fremont Interchange

Donald Drake-Willamette Western, joint venture contractors on the East Fremont Interchange project, filed suit against the State on September 18, 1974 in the amount of $2,289,199.55. The contractor claimed damages arising out of corrective work he was required to perform as the result of an apparent failure of the paint system to adequately protect the bridge and for resultant delays. Also claimed were damages resulting from delays to completion of the contract resulting from contract revisions ordered by the State.

The Fremont Bridge was constructed in three sections by three different contractors. The main span was constructed by Murphy-Pacific and produced no post-contract claims. The West Interchange, constructed by a joint venture of the H. A. Andersen Company and Hannan Bros. Construction Company, resulted in the filing of a suit by the contractor seeking $1,295,071.85 in damages. That case was settled for $429,000.

Construction of the East Interchange by Drake-Willamette was carried out under three separate contracts (Nos. 7310, 7311 and 7312) totaling $23,985,192.00.

After listening to reports on extensive review and testing carried out by State consultants and by Highway Division personnel, State legal counsel decided that because of the complexities of the project and our liability for portions of the contractor's allegations, the State would likely be held liable in court for a substantial part of the damages incurred by the contractor.

Extensive reviews of the contractor and State records were carried out in an effort to ascertain the extent of the damage suffered by the contractor. As a result of these reviews and negotiations in which Attorney General Lee Johnson personally took an active part, a settlement in the amount of $791,000 was agreed to.

The settlement is contingent on concurrence and participation by the Federal Highway Administration.

As of this date, the Federal Highway Administration reply has not been received; however, it is expected by December 21, the date of the Commission meeting.

Under terms of the proposed settlement, the State will be obligated to pay interest on any portion of the settlement amount not paid on or before December 21, 1976.

Settlement on the above basis is justified and believed to be in the State's best interest. Your concurrence is requested. This item will be on the agenda for your consideration at the December 21 meeting.

bc R. A. Burco
C. W. Head
F. B. Klaboe
E. S. Hunter
R. L. Schroeder
R. N. Bothman
Walt Hart, Region 1
Bob Ellison, Bridge
C. T. Keasey
V. E. Skoog
Walt Barrie
George Bell

FORM 81-784-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, OR

December 9, 1976

FROM: [signature]
Construction Field Engineer

SUBJECT: Claim Settlement
East Fremont Interchange
Contracts 7310, 7311 & 7312

TO: H. S. Coulter
State Highway Engineer

The enclosed suggested draft of a report on settlement of the East Fremont Interchange project law suit is submitted for presentation to the Commission at their December 21, 1976 meeting.

Possibly Walt Barrie is also preparing a report so this may represent a duplication of effort. Also I am not sure of the status or need for Commission concurrence since the matter was handled by the Attorney General's office.

ACH:mk

Attach.

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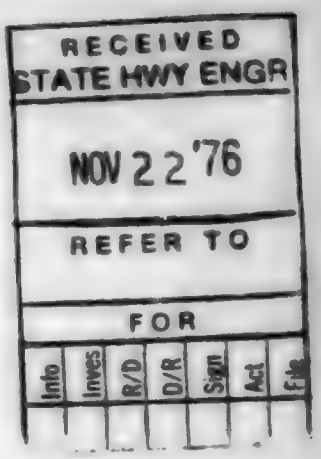
7310

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

NOTED
H. S. COULTER



November 19, 1976

Mr. Glen L. Green
Division Administrator
Federal Highway Administration
P.O. Box 300
Salem, Oregon 97310

Re: Donald M. Drake Co., et al v. State of Oregon
Marion County Case No. 88-330 (L-7121)
East Fremont Intch.
Contracts 7310, 7311, and 7312

Dear Mr. Green

We are pleased to advise you that the above-mentioned case has been settled with the plaintiff Drake-Willamette for a lump sum payment of $791,000 subject to the approval of the Federal Highway Administration. The settlement has the approval of the Oregon Highway Division, and is recommended to you by Attorney General Lee Johnson.

As you probably know, the plaintiff's complaint alleges their damages to be $2,289,019.65. This case has been subject to prolonged, extensive and detailed investigation and analysis. Negotiations with the contractors and their attorneys have also been prolonged and extensive.

Forwarded herewith, for your consideration is a legal memorandum and justification of settlement, with an attached claim analysis and justification by Allan C. Harwood, construction field engineer. Also enclosed is a copy of Drake-Willamette's revised and restructured claims, which was the basis of the final rounds of negotiation.

Under the terms of settlement, the state will be obligagated to pay interest on any portion of the settlement amount not paid to plaintiff on or before December 21, 1976. Please have the

cy Bridge
Bulletin
Region I
11-23-76

proposed settlement reviewed at your earliest opportunity. We respectfully request your approval of the settlement for federal participation.

Sincerely

Leslie B. Hampton
Assistant Chief Trial Counsel

dlc
Enclosures

cc Honorable Lee Johnson
H. S. Coulter
Walter L. Barrie
A. C. Harwood

M E M O R A N D U M

In Support of Proposed Settlement

Donald M. Drake Co., et al v. State of Oregon
Marion County Case No. 88-330

This case was filed September 18, 1974. Defendant seeks $2,289,019.65 damages for alleged breach of contract and breach of warranty by the State of Oregon. The action grew out of the plaintiff's performance of Contract Nos. 7210, 7211, and 7212, entered into between the State of Oregon (Highway Division) and the plaintiff, a joint venture of the Donald M. Drake Co. and Willamette Western Corporation, two general contracting firms, hereinafter referred to as Drake-Willamette. Under the contracts totaling $23,985,192.00, Drake-Willamette was obligated to construct the East approaches to the Fremont Bridge in Portland, Oregon. The complaint is based on a formal claim submitted by Drake-Willamette on June 6, 1973. A revised and restructured claim was submitted in April, 1976.

After prolonged negotiations Drake-Willamette, represented by attorney Preston C. Hiefield, has agreed to accept in full settlement of their claims the lump sum of $791,000. Drake-Willamette also agreed to satisfy and pay the claims of all its subcontractors, suppliers, etc. and to indemnify, defend and hold the state harmless from such claims. The State has agreed to the settlement subject to the approval of the Federal Highway Administration.

Before presenting our recommendations in support of the settlement, we will review some of the pertinent facts.

The Fremont Bridge was constructed by three contractors. The center span was constructed by Murphy-Pacific. That contract has been finalized. This case involves the East approach which as mentioned above was constructed by Drake-Willamette.

The West approach was constructed by the joint venture of Andersen-Hannan. Andersen-Hannan filed claims very similar to those of Drake-Willamette, and filed a case seeking $1,295,071.15 damages. That has heretofore been settled for a lump sum payment of $429,000. Said settlement was approved by the Federal Highway Administration.

Drake-Willamette's complaint is based on four alleged sources of damage. The first, and most important source of claim is the alleged "deterioration to the inorganic primer on the interior and exterior of the steel girders." After erection of the steel and prior to the application of the vinyl topcoat, there was a substantial rust

breakthrough failure of the primer coat. The contractors claim that they encountered substantial costs and delays occasioned by the repair of the primer coat.

The second source of claim involves the application of the vinyl topcoat. During the initial attempts to apply the vinyl, in October, 1970, a substantial problem was encountered because of the bubbling of the vinyl. The specifications required the vinyl to be applied in a single coat free of pinholes. This proved to be impossible without modification of the specifications. Experiments were made with the use of thinners and various application techniques. Eventually the contractor was authorized to apply the vinyl to the interior of the girders regardless of the bubbling to minimize the delay to the deck forming. Ultimately we switched from Enjay vinyl to a Carbolene product for the balance of the work.

The State paid for the direct cost of the tests and experiments and the switch to the more expensive Carbolene. However, the contractors claim that the substantial delay in solving the problem seriously impacted the paint application and other phases of the work. We have never seriously contested liability for the vinyl problem, but have contended that the impact was not as serious as the contractor claimed.

The third source of claim involve problems with certain of the ring girders. During the progress of the job, it was determined that there was a design problem that resulted in redesigning the ring girders. The State paid for the direct costs of the contractor, occasioned by said change. The contractors claim that the substantial delay because of the changes in the ring girder design impacted other areas of the work. We have never seriously contested liability for the ring girder problem, but have contended that the impact was not as serious as the contractor claimed.

The fourth area of claim involves the expansion joints. And here again there were design changes occasioned by a "noise problem" and also by an "elevation" problem. The State paid for the direct costs occasioned by the changes to the expansion joints. Once again, the contractor claims that the delays associated with the ring girder problems impacted other areas of the work. Here again we have never seriously contested liability, but have contended that the impact was not as serious as the contractor claimed.

We will not comment further on the "vinyl bubbling" and, "ring girder or expansion joint" problems where we acknowledged basic responsibility for the changes, but will hereafter discuss in detail the inorganic zinc failure problem.

Mr. Allan C. Harwood, construction field engineer (Bridge) who has had substantial experience both in bridge construction and in the analysis of construction claims, has devoted a substantial period of time to the analysis of the Drake-Willamette claim. He has reviewed and processed voluminous data. He has prepared a report analyzing and measuring the dollar impact of problems encountered during the work that are within the area of the State's responsibility. In that report he assessed to total dollar impact at $833,439. During his analysis he has had the assistance of other Highway staff personnel familiar with the work, such as, Robert Shotwell, the resident engineer, and Ed Hardt, regional engineer, who coordinated the three Fremont Bridge contracts in the field.

Assessment of said dollar impact was an engineering function. On the other hand, assessment of legal liability and the risks of trial is primarily a legal problem. In making this legal analysis, we have had the assistance of the mentioned and other Highway personnel. Said assessment of liability and risks has been made primarily by the undersigned, Attorney General Lee Johnson, who has been personally involved, John McLean, Assistant Attorney General, and John Leahy, Chief Trial Counsel. However, we have had support from other members of the Attorney General's staff.

Prior to discussing the liability question in detail, we will return to a discussion of the inorganic zinc primer failure and related problems. First the State contracted with Pittsburg Testing Laboratories, hereinafter called PTL, to inspect the fabrication and coating of the steel girders during the production of those members. During the progress of the work PTL issued weekly inspection reports covering painting and other phases of the work.

Drake-Willamette subcontracted said fabrication and coating of the steel to Canron Ltd. The steel girders were painted with an inorganic zinc primer by Canron in Vancouver, B. C. The work was done in a specially constructed building, where the girders were sandblasted and coated in a controlled environment. The plant was designed to allow curing of the primer inside the plant prior to exposing the girders to the weather.

Canron selected RB-191 manufactured by Enjay Chemical Co. (now Exxon Chemical Company), for the primer coat application. Production started in early August 1970. In late August and early September 1970, substantial problems were encountered in the application and cure of RB-191. Production virtually halted. At the request of Canron, the State consented to change to another inorganic zinc primer, RB-193. Enjay Chemical Co. certified that RB-193 "would provide equal or better corrosion protection than

RB-191." The State required a post-cure (acid accelerator) to insure that the RB-193 paint film would be as hard as RB-191.

The use of RB-193 apparently solved the production problems, or so it seemed at the time. Production resumed and a higher rate of production was soon obtained. The paint looked good at the time. The weekly reports of PTL indicated that the paint was being routinely and successfully applied. Although minor problems are discussed, the reports contain little if any criticism of the application techniques or the RB-193 product.

The reports neither forcast or detected the cause of the major paint failure subsequently discovered. Moreover, PTL attached green tags to all girders approved for shipment. Girders needing repairs to the painted surfaces or for other reasons were marked with a red tag. Usually these girders were not shipped until the repairs were completed. Unfortunately, almost all of the girders where the paint subsequently failed were "green tagged" and approved for shipment by PTL. Under the specifications, a sample of each batch of paint was submitted to the state for testing. Our paint laboratory approved each batch as meeting specifications.

As mentioned above, in February 1971, rust breakthrough of the primer was detected on the erected steel at the site in Portland. It soon became apparent that a substantial failure had occurred. All parties were very concerned with the problem. Various and sundry theories have been discussed by the engineers and officials involved and, by various consultants who have studied the problem. However, the specific cause or causes of the failure has never been satisfactorily identified, nor has the responsibility for the failure been pinpointed to this date.

The key to determining the legal liability for the damages occasioned by the paint failure lies in the specifications and determining whether they are "performance specifications" or "design specifications." Under "performance specifications" the contractor is simply told what the end results must be. The decision as to <u>how</u> to accomplish the work is left substantially to the contractor.

Under "design specifications" the contractor is told very specifically what is to be done and to a substantial degree how it is to be done. The contractor has few choices as to how the work is to be performed. He is directed to follow specific methods of construction and does not have the right to deviate from those methods. In the instant case, we have concluded that the specifications for the application of the inorganic zinc primer were "design specifications." (See the attached memorandum for a more detailed discussion of the law as it relates to design specifications versus performance specifications.)

The significance of having design specification is that the contractor is required only to perform the detailed steps required of him by the specifications. If these steps are properly performed, the contractor is not responsible for the failure of the specifications to achieve a satisfactory result. In the event of litigation, the contractor merely has to prove that he carried out the prescribed steps in accordance with the contract. The State then has the burden of proving the contractor did not perform in accordance with the specifications or was negligent in carrying out his work under the specifications and that the specific shortcomings of the contractor caused the damage to the work.

In this case we have little chance of making that proof. It is significant that following the discovery of the failure in February 1971, the Canron Plant was inspected by engineers, representatives and experts of:

The Oregon Highway Division
Pittsburg Testing Laboratories (PTL)
The Federal Highway Administration
The Enjay Chemical Company
The General Paint Company and
Canron, Ltd.'s own people and consultants

Except for a few relatively minor suggestions, none of the above experts or engineers could identify what had caused the problem or determine what, if anything, Canron had been doing wrong. None had substantial suggestions to solve the problem.

Another very significant provision of the specifications is the directive therein that Canron "follow the recommendations of the manufacturer in the application of the inorganic zinc primer." Here again, the contractor is required to follow said recommendations, but is not generally responsible for the consequences of bad advice from the manufacturer's representative.

Here the State having directed the contractor to follow that advice is responsible if the problems in fact originated from faulty advice from Enjay or General Paint, their local agent. We have speculated that said advice in some instances was not the best, but have never identified such advice as being responsible for the failure of the paint application.

As noted above, various experts have not been able to pinpoint the particular cause of the paint failure. The State and Canron jointly hired Mr. John Saroyan, a leading expert in this field, to answer specific questions relative to the application of the inorganic zinc paint and the failure thereof. He concluded that contaminants in the Portland atmosphere coupled with the rainy

conditions in the winter months attacked the inorganic zinc primer. His ultimate conclusion was that the coating had been properly applied but that the environmental attack erroded the zinc at a much more rapid rate than normal. He also concluded that the basic cause of the problem was the failure of the specifications to provide for a seal coat to be applied over the primer at the plant.

If our only task were to disprove Mr. Saroyan's particular theory related to the Portland environment, we should prevail. The weight of the evidence and the published data does not support his conclusions, because the level of contaminants in Portland is relatively low and, we believe, could not cause such substantial deterioration to the zinc primer.

Unfortunately, in the event of litigation, Drake-Willamette would not have the burden of accounting for the specific cause of the failure. As noted above, the contractor merely has to prove that it followed the dictates of the design specifications as to the manner in which the zinc was to be applied and that it also followed the directions of the manufacturer, Enjay Chemical Co.

Based on a review of the facts and partially on the written and oral presentation of Mr. Saroyan, Leonard I. Lindas, then chief counsel for Highway, was prepared in 1973 to recommend that the State accept liability for the failure of the inorganic zinc application. He prepared a draft letter, dated March 12, 1973, and directed to Mr. Vernon D. Cusack, acting division engineer, Federal Highway Administration.

Said drafted letter was distributed to State Highway and Federal Highway administrators and engineers for discussion purposes. Due to doubts about the soundness of Mr. Saroyan's basic conclusions, related to the Portland environment, the exaggerated nature of the Andersen-Hannan and Drake-Willamette claims and to a lesser extent to the retirement of Mr. Lindas, it was decided not to admit liability at that time. A hindsight view demonstrates that Mr. Lindas' conclusions were valid.

Further progress toward settlement or litigation of these claims was delayed by the resignation from the Attorney General's staff of Mr. John Clough, to whom the defense had been assigned. He had spent several months becoming familiar with the facts. The claims were then assigned to John Leahy, Chief Trial Counsel. The undersigned was later directed to assist him.

It was decided that we should not finally admit or deny liability in either this or the West Fremont cases until we had examined

the files and records of all of the general contractors and the files and records of Canron, Ltd. We also decided to employ an independent painting consultant to review all of the facts, make independent tests if necessary, and advise us as to the cause of the paint failure.

Obtaining and examining the mentioned information was a monumental task that took a long time. With the assistance of Highway personnel we examined all of those records, over 10,000 pages of documents were copied. We found little if any information to explain the cause of the paint failure or to implicate the contractor. Our conclusions from the survey of that data were that:

1. Canron appeared to be a substantial and competent construction firm.

2. Canron did its best to design a satisfactory paint application facility and tried to do a good job of fabricating and painting the girders.

3. Canron at the time was also mystified as to the cause of the failure, tried its best to determine the cause and also sought the advice of all concerned as to how their paint operation could be modified to solve the problem.

4. We probably could not demonstrate that Canron failed to follow painting procedures outlined in the specifications or failed to follow the directions given by the manufacturer's representatives.

5. We found nothing to prove negligence on the part of Canron in the paint application.

6. The Enjay Chemical Co. appeared to be as mystified as the other parties in determining the cause of the failure. The remedial measures they recommended appeared to be a trial and error approach to solving the problem.

We have received and analyzed the report of our consultant, Mr. Kenneth Tator. Based on a substantial review of the files and records and other data, and on his own testing program, he concluded that the most probable cause of the paint failure was the failure of the contractor to apply a sufficient quantity of the post-cure acid to portions of the girders. His conclusions appear to be logical and he probably has identified at least one

of the causes if not the principle cause of the failure. Unfortunately, his opinion does little to support a defense of this case. As mentioned we cannot prove that Canron departed from the specifications in applying the accellerator or that Canron was not following the manufacturer's recommendations.

Directions from Enjay Chemical to Canron on the application of the post-cure acid were vague. Canron was instructed to apply that acid "in a mist coat" and to "thoroughly wet" the surfaces. We cannot prove that Canron did not do so. The viscosity of the post-cure is similar to water, and there is no way to subsequently directly measure the quantity applied. An inspector would have to observe 100% of the operation to estimate the quantity of the accellerator actually applied.

On the question of liability, we have concluded that this case is a "loser" for the State. We could present a relatively weak circumstantial case to a jury, but it would not be very convincing and we would probably be stuck with liability. Trying to fight liability from a weak position would probably result in a higher verdict on the damages. With the assistance of Mr. Lee Johnson, Attorney General, who has been directly involved in the negotiations and discussions, we concluded that the State would be assessed 100% of the liability, if the case was tried. We of course , did not communicate that conclusion to the Drake-Willamette attorneys. As mentioned, this case is a loser for the State on liability.

If the case is tried, we will probably admit liability. As mentioned the danger is that the jury in rejecting our claim would reject our opinions as to the extent of damages. Although damages are difficult to determine, we could prove that the Drake-Willamette claims are substantially exaggerated. Accepting 100% liability, Mr. Harwood's report on the damages more than justifies the settlement herein recommended.

As set out in Mr. Harwood's report, the impact from the State caused delays equals $833,439. This amount is $42,439 more than the $791,000 settlement amount. In my opinion the total amount of the settlement is justified because of Mr. Harwood's analysis and the following:

First, if the case is tried substantial portions of the claim would bear "pre-judgment interest." For example, the zinc repair costs of $179,680. Five year's interest on that item alone would be about $53,980. Similar interest would also be allowable on other claims where it could be demonstrated that the State should have paid a particular larger sum at a particular given time. The total prejudgment interest award would, we believe, be $75,000 to $100,000 or more.

This would be a very difficult and expensive case to defend. The added cost including the attorney and witness fees for preparation and trial would probably total $50,000-75,000. The trial and appellate court litigation could be extensive and prolonged. For example, residual portions of the Astoria Bridge litigation against DeLong are still active after 12 years of litigation.

There is another intangible justification for this settlement. That is the substantial risk of a large jury verdict. I feel we can demonstrate objectively that the contractor's claim is substantially too high. On the other hand, Mr. Harwood's evaluation or the contractor's version of the damages is based on many subjective judgments as well as objective facts. If a qualified witness for the contractor testified to $1,000,000 to $1,250,000 in damages, we would be hard pressed to objectively demonstrate that his opinion was incorrect or less valid than Mr. Harwood's opinion.

Another risk with a jury trial is that the jurors due to the complexity of the factual issues involved in the claim, would be confused, particularly if we were to defend on liability as well as damages. There is a substantial chance that the jury might not understand the evidence. It has been my experience that a jury, if confused on damages, tends to award a larger sum to a private party against the State.

In conclusion, we submit that the lump sum settlement of $791,000 is justified and in the best interest of the State and Federal governments. It is also less than the probable verdict, if this case is tried.

Dated: November _____, 1976.

LEE JOHNSON
Attorney General
JOHN LEAHY
Chief Trial Counsel

/s/ Leslie B. Hampton
LESLIE B. HAMPTON
Assistant Chief Trial Counsel

dlc
Attachment

LEGAL
M E M O R A N D U M

Design Specifications v. Performance Specifications

Donald M. Drake Co., et al v. State of Oregon
Marion County Case No. 88-330 (L-7122)

Based on the data and cases hereinafter discussed, I have concluded that the specifications for the application of the inorganic zinc primer and the vinyl topcoat used for coating the girders for the East Approach to the Fremont Bridge are design specifications.

In the memorandum in support of the proposed settlement to which this legal memo is attached, I defined and discussed generally the distinction between design and performance specifications.

In J. L. Simmons Co. v. United States, 412 F2d 1360 (Ct Cl 1969), the court discussed the distinction as follows:

> "The specifications, which were prepared by the defendant, are a classic example of 'design' specifications, and not 'performance' specifications. In other words, in these specifications, the defendant set forth in precise detail the materials to be employed and the manner in which the work was to be performed, and plaintiff was not privileged to deviate therefrom, but was required to follow them as one would a road map. In contract, typical 'performance' type specifications set forth an objective or standard to be achieved, and the successful bidder is expected to exercise his ingenuity in achieving that objective or standard of performance, selecting the means and assuming a corresponding responsibility for that selction." Id at 1362 (Footnote omitted).

As is often the case it is easier to define "design" and "performance" specifications than it is to determine in a particular case whether the specifications fall into one category or the other. In Kansas Turnpike Authority v. Abramson, 275 F2d 711 (10th Cir 1960), the court discussed that problem at 713 as follows:

> ". . . Whether ours is an 'end result' contract or a 'specified manner and method' one depends of course upon the intention of the parties, to be gathered from its text and context: Construction by classification or categorization is rendered

> difficult, if not impossible, by the fact that contracts like ours call for an end result according to specifications. And so, in the last analysis, we must look to the contract by the whole of its parts to determine whether the parties actually intended to provide compensation for extra work required to be done through the fault of no one . . . ."

The court uses the terms "end result" and "specified manner and method" in lieu of "performance" and "design" specifications. However, the test used for categorizing the specifications for a particular job is logical. We will hereinafter examine our specifications in this case utilizing that test to categorize them.

However, prior to that examination, it is necessary to consider another legal guideline. When the owner issues specifications particularly design specifications, there is an implied warranty that if the contractor faithfully follows the specifications that a satisfactory result will be obtained. One of the lead cases discussing that theory of law is J. D. Hedin Construction Co. v. United States, 347 F2d 235 (Ct Cl 1965).

> "It is well settled that where the government orders a structure to be built, and in so doing prepares the project's specifications prescribing the character, dimension, and location of the construction work, the government implicitly warrants nothing else appearing, that if the specifications are complied with, satisfactory performance will result. [Citations omitted] . . . 'This implied warranty is not overcome by the general clauses requiring the contractor to examine the site, to check up the plans, and to assume responsibility for the work until completion and acceptance.' [Citation omitted] . . ."

The Hedin cases cited as authority United States v. Spearin, 248 US 132, 39 S Ct 59, 63 L Ed 166 (1918). This is the leading United States Supreme Court case that originated or at least solidified the quoted "implied warranty" doctrine. The Oregon Supreme Court has specifically adopted the above "implied warranty" doctrine. A. H. Barbour & Son, Inc. v. Highway Comm., 248 Or 247, 433 P2d 817 (1967); Savage v. Kiewit Sons' Co., 249 Or 147, 154, 432 P2d 519 (1967).

We turn now to an examination of the specifications incorporated into this contract, specifically the specifications relative to the inorganic zinc primer and the vinyl topcoat.

This contract was let in 1969 and therefore is governed by the 1964 edition of the Highway Division "standard specifications." However, Section 414 thereof, "Painting New Metal Surfaces" was deleted in its entirety and in its place was substituted "The Steel Structures Painting Manual, Volume 2, Systems and Specifications, Second Edition." This document becomes in effect Section 414 of the Standard Specifications. However, in turn special provisions modified the steel structures painting manual in certain respects and also adopted by reference a number of additional military and federal specifications. As a result, all of the following specifications must be considered:

1. Standard Specifications (1964 Ed), except Section 414.

2. Steel Structures Painting Manual, Volume 2, Systems and Specifications, except as explicitly modified by the Special Provisions, entire SSPC, Vol. 2 was adopted, but including any documents which are by reference made a part of Volume 2.

3. Special Provisions of the contract, new Section 414, "Inorganic Zinc Silicate-Vinyl Coating."

4. The recommendations of the paint manufacturer.

5. The following military specifications:

MIL-P-23236 (ships)	Paint Coat Systems, Steel Ship Tank, Fuel and Salt Water Ballast
MIL-A-15206A	Aluminum Stearate
MIL-S-15191A	Diatomacious Silicate

6. The following federal sp ecifications:

TT-P-350b	Pigment, Lampblack Dry
TT-P-343	Pigment, Carbon-Black, Dry
TT-P-846b	Butyl Alcohol: Normal (for use in organic coatings)
TT-E-776b	Ethylene Glycol Monobutyl Ether (for use in organic coating)
TT-E-781b	Ethylene Glycol Monoethyl Ether, Technical
TT-I-735d	Isopropyl Alcohol, Technical
TT-P-403a	Pigment, Magnesium-Silicate, Dry
TT-P-460	Pigment, Zinc-Dust (Metallic Zinc Powder), Dry
TT-M-268b	Methyl, Isobutyl Ketone (for use in organic coatings)
TT-R-191d	Red Lead, Dry and Paste-In-Oil, Type L Grade 97% Red Lead
TT-P-442	Pigment, Titanium-Dioxide, Type 3, Grade B (Rutile Non-Chalking Type)

TT-T-548c	Toluene, Technical
TT-P-458a	Pigment, Yellow-Iron-Oxide
TT-X916b	Xylene (for use in organic coatings)
	Federal Test Method Standard 141

It is easy to list the many items which are incorporated as part of the specifications. It is not easy to correlate the items and determine their relative priority. A complicating factor is the requirements in the specifications that the contractor in applying the inorganic zinc primer "follow the recommendations of the manufacturer." What if the manufacturer's recommendation varies from the special provisions or one of the specifications incorporated by reference? Although the contract is ambiguous, it is probable that the intent of the parties is to make the manufacturer's recommendations paramount.

In that connection the Steel Structure Painting Manual in referring to zinc primers, states:

> ". . . Therefore, adequate instructions from the manufacturer are essential and must be closely followed to obtain best performance from these coatings.
>
> ". . . .
>
> ". . . the importance of obtaining and following manufacturer's recommendations cannot be overemphasized." SSPC-PS 12-64P

On the job, many of Canron's activities in preparing the surface and applying the coating were guided by the recommendations of Enjay Chemical Co., the manufacturer.

The specifications controlled the painting subcontractor Canron in considerable detail in (1) the selection and approval of the paint manufacturer; (2) approval of the paint itself; and (3) the application and inspection procedures for preparing the surface and applying the paint.

Canron in selecting the manufacturer, had to find a coating that conformed to the following:

> "1. It had to be listed in the qualified products list QPL-23236-21 of products qualified under military specifications MIL-P-23236 (Ships), type I, class 3.
>
> "2. It has to be wholly inorganic.

"3. It had to be self-curing.

"4. It had to be a two-component type consisting of a pigment component and a liquid component.

"5. The composition of the coating had to allow the applier to achieve a 3-mill dry film thickness with a single coat application.

"6. The mixed paint had to contain zinc pigment of not less than 85% by weight of the total non-volitile content.

"7. The zinc dust pigment had to be type I regular, meeting federal specification TT-P-460.

"8. The manufacturer had to furnish case histories substantiating satisfactory performance of the product under specific conditions for at least three years.

"9. The zinc primer manufacturer had to be able to furnish a specified vinyl paint that was compatible with the zinc primer.

10. The manufacturer had to be able to furnish to the paint applier a qualified "technical advisor."

The paint under the special provisions had to pass physical tests. The manufacturer had to conduct and certify to the State certain tests performed and supply to the State test panels under definite prescribed conditions. Enjay Chemical performed the tests and submitted the proofs including the test panels to the State. The State approved said documentation and proofs.

Relative to approval, the special provisions provided that "final acceptance" will be based on test reports of samples obtained after delivery of the paint materials. As mentioned in the memorandum to which this document is attached, the State approved in writing a sample from each and every batch of paint used on the job. So far it seems obvious that the contractor had few if any options in selecting the paint to be used on the job. Moreover, no one has theorized or demonstrated that the paint itself was the cause of the problem on the job.

Turning to the application of the paint, first the requirements for surface preparation, (sand blasting) were very detailed. The applier was required to meet the requirements of Steel Structural Painting Manual, Chapter SP-563, "White Metal Blast Cleaning." He was also directed to follow the manufacturer's recommendations. The specifications were very specific with

regard to the permissible blast-cleaning methods, the brushing and cleaning after blasting, the removal of water and oil from the compressed air used for blasting, the maximum time between blasting and paint application, the inspection of the surfaces after blasting for oil and grease smudges and the matter of removing the same, the height of the profile of the anchor pattern, and the final provision that the surface just prior to the primer was to visually match the appropriate Sa-3 plate SSPC pictorial surface preparation standards.

The depth of the blast profile was specifically described. SSPC SP 563 specified the maximum particle sizes for use with the various blasting methods. Canron found that the profile requirement could not be attained without modification of the blasting mix. Paragraph 2.2, SSPC-PS 12-64 P referring to blast-cleaning states:

> ". . . Instructions from the manufacturer are essential and must be closely followed. . . ."

Canron has contended that when the problems developed they consulted with Enjay Chemical Co. and were directed to follow a particular blasting program by the manufacturer's recommendation. The manufacturer's recommendations probably controlled where there were conflicts in the specifications. In any event, none of the State's engineers or experts or the inspectors and engineers of PTL ever identified the blast-cleaning as being the cause of the paint failure. The PTL reports mention routine blasting deficiencies and the correction thereof, but do not mention major problems with the sandblasting.

The application of the paint was also rigidly controlled by the specifications. SSPC Manual, Volume 2 and the Federal and Military Specifications incorporated total hundreds of pages and dictate in minute detail every step of the painting process from the manufacturing methods through the shop application methods and the means for measurement, inspection and approval of the paint film.

In addition, Enjay Chemical Company held seminars in the application of the paint for Canron employes and representatives of the State and PTL. Enjay Chemical Company during the progress of the job, from time to time issued written directives on various aspects of the paint application.

Summarizing some of the detail from the specifications, the manufacturer had to ship paint in containers of a specified size. The nature of the on-the-job storage area was detailed. The order of use of the stored paint containers was specified. The batches of paint had to be labeled in a particular manner. The paint applicator was instructed to follow the manufacturer's recommendations in the method of mixing the paint. In addition, the

specifications provided for the type of mixing pot to be used, including the type and length of the stirring paddle and the type and mesh of the strainer to be used after mixing.

The type of the spray gun was prescribed, the type of the paint pot was detailed and the elevation of the paint pot related to the elevation of the spray gun was set out.

The minimum temperature of the surface of the steel and the minimum temperature of the paint was specified. The minimum temperature and the relative humidity to be maintained in the paint shop was specified, as well as the minimum and maximum air velocity within the shop.

The detailed directives covering spraying included procedures covering overlap, the angle of the spray gun to the surface, and the distance of the gun from the surface. Methods of handling the sags and runs was also specified.

From the foregoing it is clear that Canron had little if any control over the materials used, the equipment employed or the techniques of application. Also it is important to recall that all of the painting was observed by PTL inspectors on a day-to-day basis.

CONCLUSION

Sometimes it is difficult to locate the dividing line between design and performance specifications. On the other hand, a detailed review of specifications often discloses that specifications for a particular job operation are clearly within one area or the other.

In this case, it seems clear that the inorganic zinc plant selection and application specifications are clearly design specifications. Moreover, the State in issuing the same impliedly warranted that if the contractor followed the specifications that a satisfactory result would be obtained. Consequently, if the contractor is to be charged with liability for the paint failure; the State has the burden of proving specific causes of the paint failure; specific negligence or violation of the specifications by the contractor and that said violations of the specifications caused the failure.

Dated: November _____, 1976.

LEE JOHNSON
Attorney General
JOHN LEAHY
Chief Trial Counsel

/s/ Leslie B. Hampton
LESLIE B. HAMPTON
Assistant Chief Trial Counsel

dlc

FORM #1-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, OR

November 18, 1976

FILE:

FROM: A. C. Harwood
Construction Field Engineer

SUBJECT: East Fremont Claim Analysis

TO: Les Hampton
Asst. Attorney General

Herewith report on my analysis of the claim for additional compensation presented by Drake-Willamette, Joint Venture contractor on the East Fremont project.

The claim is the result of problems with the paint system and design and specification deficiencies. During the period the additional costs claimed were incurred, I had no involvement with the project. Conclusions incorporated in my report are the result of a review and investigation carried out after completion of the project. In my analysis I have first attempted to identify which of the problems cited in the claim were the responsibilities of the State, then the costs which were greater than they would have been but for those problems. My assumptions as to the State's liability for the various cited problems were the result of many hours of review of the contract job records, contract plans and specifications, and numerous meetings with State and contractor personnel involved in the construction of the project; consultants engaged to analyze paint problems; yourself; Jack McLean and Attorney General Lee Johnson. My findings as to additional costs attributable to the problems for which the State is responsible or shares in the responsibility are the result of numerous sessions with the contractor, subcontractors, State personnel, consultants retained by the contractor, and many hours of review of State and contractor records of the project.

The first part of my report is a general discussion of the problems which form the basis of the claim and the results of my analysis as to the State's responsibility for each of the claim items. In the next section, I have determined what, in my judgment, were the excess contractor's costs for each of the areas where I recognized possible State responsibility, and the State's portion for those costs.

Costs claimed by the contractor are the result of loss in efficiency in performing contract items of work which, in addition to increasing the direct labor costs, extended the period of ownership and operation for equipment and extended the period job overhead costs were being incurred. Also claimed are the direct costs for repair of the zinc primer. Subcontractors claims are for continuing overhead, uncompensated extra work, second season mobilization costs, loss in efficiency, and other expenses resulting from the paint problems.

Also enclosed is a copy of the contractor's claim.

ACH:mk

Attach.

EAST FREMONT BRIDGE CLAIM ANALYSIS

Basis of Claim:

The contractor claims the following items resulted in uncompensated direct costs for added work, increased costs for accomplishing contract work, additional overhead expenses due to prolonging the project and escalation of costs due to delaying performance of contract work.

A. Problem with rust breaking through zinc primer.

B. Problems with vinyl paint application over the zinc primer.

C. Revision in the ring girders.

D. Revisions in the expansion joints.

E. Necessity for application of vinyl in advance of concrete deck construction.

F. A deck pouring procedure requiring steel to be erected 3 spans ahead of deck pouring.

A & B. Rust Break Through,Zinc Primer and Problems with Vinyl Application Over the Primer.

Recognizing some probable liability,contractor added expenses attributable to these two items have been determined.

Paint problems caused delay to commencement of productive deck forming work. Repairs to the zinc interfered with deck forming work for an extended period of time. Even into the spring of 1972 forming of large sections of the deck could not be completed due to paint delays which could be traced back to zinc and vinyl problems.

Additional costs claimed by the contractor for vinyl and zinc problems consist of direct costs for repair work,costs due to prolonging the work, and increased costs in performing contract work. The contractor did perform considerable repair work for which he was not compensated. Conflicts between painting and deck forming work did exist through much of the forming operation resulting in inefficiencies in the deck forming and subsequent operations as well as extensive delays.

C. Revision in Ring Girders.

Revision in the ring girders was necessitated by design deficiencies. The contractor was compensated for direct costs involved in the revisions but now claims these revisions resulted in added costs due to loss in production and prolonging of contract work.

C. Revision in Ring Girders (Con't.)

The State is responsible for added costs identifiable as resulting from the revisions. Ring girder revisions did prolong the structural steel erection and did create inefficiencies for which compensation for extra work did not cover.

D. Expansion Joint Revisions:

Revisions of the expansion joints were made due to deficiencies in the original design. The revisions delayed delivery of the joints to the project thus necessitating their installation as a separate operation. The joints not being in place resulted in increased bridging across the openings left in the deck for the joint and the length of time the bridging had to remain in place.

Actual costs for the joint revisions were paid as extra work. The contractor was not compensated for added installation or bridging costs.

E. Application of Vinyl in Advance of Concrete Deck Construction:

The application of the vinyl in advance of the deck forming operation was allowed contrary to specifications as mutually advantageous to the contractor and the State. While the cost of some items of work increased as a result of this change, other items decreased. In my judgment, the State is not responsible for any added costs and it is very questionable that overall the cost was increased by applying the vinyl in advance of the deck construction. This is not considered a valid claim item.

F. Deck Pouring Procedure:

No claim is made for added costs due to the deck pouring procedure required of the contractor. I agree with Mr. Nourse's analysis the procedure required had little if any affect on the contractors operation. In addition I cannot recognize any costs resulting from the deck pouring procedure as the State's responsibility.

Also included in the claim are costs incurred in preparation of the claim. Included are legal fees and claim preparation costs. Allowance of these costs is considered a legal question and is not within the scope of this analysis.

EAST FREMONT BRIDGE CLAIM - COST ANALYSIS

PAINT - ZINC AND VINYL PROBLEMS

The first eight items are increased labor costs for contract work impacted by paint problems. To arrive at the added costs for the first seven items the contractor compares performance during a relative unaffected period with the performance during the periods work was impacted. He claims that even during the favorable periods he would have done better "but for" the impacting factors.

The relatively unimpacted period, referred to as the "yardstick" period selected by the contractor as a performance indicator was from July 18, 1971 to October 17, 1971. Review of data for this period revealed an error in costs reported for the week ending October 17 so the period was extended to October 24, 1971.

In my opinion the assumed 5% loss in productivity attributable to paint problems during the yardstick period is not justified and is not allowed in my calculations.

With these adjustments I can accept the contractor's approach to determining losses as reasonable and accurate.

Claimed $ 173,751

Deck Forming

In addition to the prior previously mentioned adjustments the impact period and quantity of impacted work was reduced.

Allowed $ 88,937

Claimed $ 14,050

Concrete Placement in Decks

Same adjustments as made in deck forming.

Allowed $ 6,711

Claimed $ 21,964

Deck - Wet Finish

Same adjustments as made in deck forming.

Allowed $ 6,459

Claimed $ 2,125

Deck Cure

Same adjustments as made in deck forming.

Allowed $ 1,210

Claimed $ 56,421

Clean Structural Steel

This cost is claimed as due to application of vinyl ahead of deck work. Discussions revealed a portion of the costs was due to the long period of time some of the forms were in place awaiting completion of zinc repair work. Weathering of forms would increase cleaning costs. In discussions with the contractor I arrived at 40 man days as reasonable for the effort required to perform the added cleaning.

Allowed $ 2,282

Parapet Forming — Claimed $ 38,112

Adjusted for yardstick period correction and not recognizing 5% loss in productivity during yardstick period.

Allowed $ 32,135

Concrete Placement in Parapet — Claimed $ 3,911

Same adjustments as for forming.

Allowed $ 3,135

Parapet Finish — Claimed $ 9,226

Same adjustments as for forming.

Allowed $ 3,236

The remaining items relate to time delay resulting from paint problems. The first 6 time related items are the result of the contract being extended. The extension of the contract resulted in equipment and operators, supervisors, office trailers, etc. on the project for a longer period of time. Also added expenses for utilities, overhead, materials were incurred. Drake, as the sponsor of the joint venture, incurred added home office overhead, in the form of payroll clerks, computer operation, other supervisory help, utility cost, etc. which must be recognized as increased due to the project being prolonged.

Specified time for completion of all work on the project was 755 calendar days. Time would have run out on or about October 21, 1971. Work on the project was essentially completed November 28, 1972, 13 months after planned completion date. Final cleanup was not completed until May 25, 1973, 19 months late. No liquidated damages were assessed as a result of the failure of the contractor to complete the project within the specified time. Of the 19 months work contract continued beyond the specified completion time, 8.16 months is claimed as due to delays for which the State is allegedly responsible.

Of the 8.16 months delay claimed I can recognize 5-1/2 months as due to paint problems. One month delay was incurred prior to May 1971 due to vinyl problems and investigation of the rust breakthrough of the zinc primer. The two weeks recognized as delay to the structural steel erection ran concurrently with the initial vinyl-zinc problem.

The 4-1/2 months which delay experienced after May is attributable to reduced production and delays resulting conflicts with the paint repair work.

As compensation for added costs incurred as a result of the delay the contractor claims expenses for the period of September 1, 1971 and May 5, 1972. After May 5, 1972 he indicates overhead expenses were winding down and were not representative of damages suffered.

All time related costs were reduced to reflect the expenses for 5-1/2 months rather than the 8.16 months claimed. Other adjustments were made in individual items as noted.

Equipment Operators — Claimed $ 69,312

Equipment operator costs claimed as due to ring girders was considered with ring girder analysis. Other equipment operators cost total 61,320. This amount is accurate for the 8.16 month delay claimed.

Allowed $ 41,332

Equipment — Claimed $ 340,978

Spliting out equipment costs due to ring girder revision reduces added paint caused equipment costs to 301,303. Operation of some items of equipment could not be verified and rates charged for some pieces of equipment were unacceptable.

Allowed $ 107,172

Overhead Expense Personnel — Claimed $ 68,140

Minor adjustment in costs was made for the 8.16 month period to reflect vacation credit.

Allowed $ 44,870

Material and Other Fixed Costs — Claimed $ 49,261

Several items were not allowed as additional costs due to paint problems.

Allowed $ 27,285

General Conditions - Labor — Claimed $ 9,518

This is overhead nonsupervisory labor costs.

Allowed $ 6,391

Overhead Allocation — Claimed $ 305,184

This item as claimed is a pro rata amount of the total home office cost for Drake. Only a portion of these costs could be identified as directly related to the Fremont Bridge. Allowed for these home office overhead costs is $5,000/month for 5-1/2 months.

Allowed $ 27,500

The next two items are due to portions of the work being delayed so those portions had to be accomplished with higher priced (due to rate increases and inflation) labor and material costs.

Material Escalation — Claimed $ 6,738

Adjusted for the 5-1/2 month delay recognized.

Allowed $ 4,541

Labor Escalation — Claimed $ 11,054

Adjusted for the 5-1/2 month delay recognized.

Allowed $ 7,450

Zinc Primer Repair Costs

These are the direct costs incurred by the contractor in repairing areas where there was rust break through of the zinc primer. Very detailed records were kept by the State of these costs.

Inorganic zinc repairs paid Klaas $177,487

Our records support more cost for this work than claimed.

Allow per State records $179,680

Subcontractor and Material Supplier Claims

All subcontractor claims are attributed to the paint problem.

Canron — Claimed $ 223,799

Canron, steel supplier, has claimed unusual additional costs of $143,092.11 due to paint problems. The amounts claimed are portions of the time for regularly salaried people, consultant costs, anticipated legal fees and interest on monies retained by the contractor. They have lumped their costs for East and West side together and prorated the amount allotted to each contract in the same ratio as the dollar value of work they performed, 60.63% to this contract.

Items allowed:

Wages, salaries and expenses	$66,432.66 x .6063 =	$ 40,278
Consultant fees	$28,744.15 x .6063 =	$ 17,427
Miscellaneous	$ 665.00 x .6063 =	$ 403
		$ 63,919
Mark up		$ 5,811
Total		$ 63,919

Gilmore Steel Contractor — Claimed $156,019.92

Gilmore claims loss in productivity, extended supervision, field and shop labor escalation, material escalation, and equipment on the project beyond anticipated completion dates.

Items Allowed:

Efficiency loss	$ 6,894
Extended supervision	$ 10,250
Field Labor Escalation	$ 3,633
Shop Labor Escalation	$ 871
Rebar Escalation	$ 8,909
Equipment on job extended period	$ 9,551
	$ 40,108
Mark up 10%	$ 4,010
Total	$ 44,118

Klaas Bros. $102,649

Klaas Bros. claim was revised to $109,656

Includes wage escalation premium pay, overtime worked to minimize delays, subsistance for painters working on zinc repair, second year mobilization costs, extended supervision, mark up on paint purchased for extra work, equipment on project for extended period and unpaid extra work.

Items recognized:

Wage escalation	$ 5,164
Mobilization	$ 572
Extended supervision	$ 3,826
Mark up on vinyl	$ 3,237
Mobilization	$ 4,225
Unpaid billing force account work	$ 600
	$ 17,624
Mark up 10% *	$ 1,439
Total	$ 19,063

* Except on vinyl

RING GIRDER REVISION

The claim is that 2 weeks in time and effort of the steel erection crews were lost in erection of the structural steel as a result of revisions in the ring girder. Actual cost of making the revisions was paid as extra work; however additional moves resulting from revisions in erection sequence were not compensated nor were inefficiencies resulting by the performance of the extra work recognized.

My review indicates the 2 weeks claimed as lost production for the steel erection crew is conservative if anything. Additional time for completion of the project was allowed for ring girder revisions considerably in excess of the 2 weeks lost production claimed.

Contractor job records support the amount claimed for 2 week delay.

Cost items claimed:

Structural Steel Erection $ 29,685

This amount represents labor costs for the steel erection crew for two weeks. Operators are not included.

Amount recommended $ 29,685

Equipment Operators (Struct. Steel) $ 7,992

Labor costs for operating equipment used in steel erection.

Amount recommended $ 7,992

Equipment (Struct. Steel) $ 39,675

Equipment costs attributable to 2 week delay at force account rates.

Amount recommended $ 39,675

EXPANSION JOINT REVISIONS

The contractor claims that revisions ordered by the State and paid for as extra work delayed delivery of the expansion joints resulting in out of sequence erection and additional costs for bridging access block outs left for the joints. The State is responsible for added erection costs and added bridging costs.

Expansion Joint Erection Claimed $ 36,714

Cost records support the amount claimed for installation of the joints. In my opinion, added labor cost claimed is high. However, there were added equipment costs which were not claimed and would more than offset any excess labor.

Allowed as claimed $ 36,714

Temporary Bridging Claimed $ 1,947

The contractor compares the bridging that would have been required with that actually required. In my judgment, the amount claimed is reasonable.

Allowed as claimed $ 1,947

APPLICATION OF VINYL AHEAD OF DECKING

Not recognized as a valid basis for a claim.

Clean Structural Steel Claimed $ 56,421

The portion of the increased cleaning costs attributable to application of vinyl ahead of the deck construction is not allowed. In discussion with the contractor it was brought out that some of the cleaning costs could be attributed to delays resulting from zinc primer problems. A portion of the claim is therefore reconsidered as a paint problem cost.

Claim Preparation Costs — Claimed $ 90,368

Costs claimed result from preparation of the claim and include legal fees, consultant fees, photo and assembly costs. No part of this item is considered to be within the scope of my analysis.

Allowed $ 0

CLAIM SUMMARY

ITEM	AMOUNT CLAIMED	ALLOWED	
Paint Problems - Includes vinyl coating and zinc primer problems.			
Deck forming	$ 173,751	$ 88,937	
Deck Pouring	14,050	6,711	
Deck Finish	21,964	6,459	
Deck Cure	2,125	1,210	
Parapet Forming	38,112	32,135	
Parapet Pouring	3,911	3,135	
Parapet Finish	9,226	3,236	
Clean Structural Steel	**	2,282	
** Claimed under application of vinyl ahead of deck construction.			
Equipment Operators	61,320	41,332	
Equipment	301,303	107,172	
Overhead	68,140	44,870	
Materials	49,261	27,285	
Labor - General Conditions	9,518	6,391	
Overhead allocation	305,184	27,500	
Material Escalation	6,738	4,541	
Labor Escalation	11,054	7,450	
Zinc Primer Repair	177,487	179,680	
Paint Total - Contractor			$590,326
Subcontractor Claims:			
Canron	$ 223,799	$ 63,919	
Klaas	102,649	19,063	
Gilmore	171,622	44,118	
Total Subcontractor			$127,100
Total Paint Items			$717,426
Ring Girder Revision			
Structural Steel Erection	$ 29,685	$ 29,685	
Equipment Operators (Struct. Steel)	7,992	7,992	
Equipment (Struct. Steel)	39,675	39,675	
Total - Ring Girder			$77,352
Expansion Joint Revisions			
Expansion Joint Erection	$ 36,714	$ 36,714	
Temporary Bridging	1,947	1,947	
Total Expansion Joint Revisions			$38,661
Application of Vinyl in Advance of Deck Construction			
Clean Str. Steel	$ 56,421	***	

*** Some allowed under paint problem.

ITEM	AMOUNT CLAIMED	ALLOWED
Deck Pouring Procedure		
No Claim	-----	-----
Claim Preparation	$ 90,368	$ -0-
Total Claim	$2,014,016	$833,439

#7310

FORM S-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, OR 97310

DATE March 5, 1976

TO James Chidsey
Railroad and Utilities Engineer

FROM J. B. Boyd
Right of Way Engineer

SUBJECT File #36087 - L6682

I have read Mr. Sollis' letter of February 28 and discussed the problem of the Resident Engineer's building under the Fremont Bridge. The stipulation when we settled this particular case clearly and concisely indicated that the Union Pacific Railroad would not in any way have an option of buying the building under the bridge. This is shown on page 3 of the stipulation.

Please advise the Union Pacific Railroad that it is our decision that the building be removed from the land as contained in that stipulation. They will received possession of this on or before January 1, 1978.

JBB:lb

cc: R. L. Schroeder w/ copies of agreement
R. N. Bothman "
Jack Sollis "
L. C. Grothaus "

NOTED
R. L. SCHROEDER

RECEIVED
MAR 8 1976
Office of
Assistant State Highway Engineer

IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF MULTNOMAH

STATE OF OREGON, by and through its State Highway Commission, composed of Glenn L. Jackson, Fred W. Hill and Thaddeus B. Bruno, Plaintiff, vs. OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation; and UNION PACIFIC RAILROAD COMPANY, a Utah corporation, Defendants.	NO. 379-083 STIPULATION

WHEREAS the above-entitled case was tried and a verdict entered on the 26th day of June, 1974 in the amount of $386,723.49. Judgment was entered nunc pro tunc June 27, 1974, appropriating the property described in the complaint to the plaintiff upon payment of the sum of $218,723.49, said amount being the difference between $168,000 previously deposited by plaintiff and the judgment of $386,723.49. Said judgment also provided for the payment to defendants of interest at the rate of six percent per annum on the sum of $386,723.49 from June 13, 1969 to and including April 28, 1972, together with additional interest on the sum of $218,723.49 at the same interest rate from April 29, 1972 until paid, and together with costs of

appraisal and fees for experts incurred in preparing and conducting the defense to the action, and for their other costs and disbursements in the amount of $35,049.24.

WHEREAS plaintiff has instituted an appeal of said judgment to the Court of Appeals, and said appeal is presently pending.

WHEREAS plaintiff and defendants believe that it is in the best interest of each party to compromise and settle the matter without further litigation.

NOW, THEREFORE, IT IS HEREBY STIPULATED by and between the parties hereto as follows:

I.

Just compensation to be awarded to defendants in the above-entitled case is the sum of $350,000, plus costs of appraisal and fees for experts incurred in preparing and conducting the defense to the action and for other costs and disbursements to defendants in the amount of $25,000. In addition to the above monetary consideration, plaintiff agrees to convey to defendant OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation, the four lots described in Exhibit A attached hereto and by this reference made a part hereof, subject to the same restrictions as set forth on pages 6, 7, 8, 9 and 10 of the judgment on file herein. Lots Nos. 8, 9 and 10, described in Exhibit A, will be conveyed to defendant OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation, upon execution and return of this

stipulation. Lot No. 6, described in Exhibit A, will be conveyed to defendant OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation, on or before January 1, 1978. Plaintiff, at its expense, will remove the building now located on said Lot No. 6, and clean and restore the surface of the ground, before conveyance of said lot to defendant OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation. Until such time as said lot is conveyed, plaintiff will be solely responsible for the maintenance and operation of said lot and building. Defendants shall not have the option of purchasing said building from plaintiff.

II.

Upon execution and return of this stipulation, plaintiff will immediately cause the appeal now pending before the Court of Appeals to be dismissed without cost to either party.

III.

Upon receipt of the additional sum of $182,000, the balance of the just compensation, and the sum of $25,000 for costs of appraisal and fees for experts incurred in preparing and conducting the defense to the action and for their other costs and disbursements, the deed to said Lots Nos. 8, 9 and 10, described in Exhibit A, and a standard owner's title insurance policy insuring for the sum of $18,800 fee simple title in OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation, to said lots, subject only to the conditions

and restriction provided herein, defendants will immediately enter a partial satisfaction of judgment, subject only to the conveyance of said Lot No. 6, described in Exhibit A, and delivery of the title insurance policy hereinafter described by plaintiff to defendant OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation, on or before January 1, 1978. Upon conveyance of said Lot No. 6, described in Exhibit A, and delivery to defendants of a standard owner's title insurance policy insuring for the sum of $6,800 fee simple title in OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation, to said Lot No. 6, subject only to the conditions and restriction provided herein, defendants will enter a full satisfaction of judgment.

IV.

Neither party shall be entitled to any interest, costs or attorney's fees other than those specifically set out above.

DATED this 5th day of March, 1975.

Jack L. Sollis

Jack L. Sollis
Of Attorneys for Plaintiff
Department of Justice
100 State Office Building
Salem, Oregon 97310
Telephone: 378-4400

L. James Bergmann

L. James Bergmann
Of Attorneys for Defendants
P. O. Box 4265
628 Pittock Block
Portland, Oregon 97208
Telephone: 288-8221

EXHIBIT "A"

Lots 6, 8, 9 and 10, Block 1, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon.

PERMANENT EASEMENT

Parcel 1	8650 Square Feet
Parcel 2	5415 Square Feet
Parcel 3	4732 Square Feet
Parcel 4	5250 Square Feet
Parcel 5	2.16 Acres
Parcel 6	1715 Square Feet

IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF MULTNOMAH

STATE OF OREGON, by and through its State Highway Commission, composed of Glenn L. Jackson, Fred W. Hill and Thaddeus B. Bruno, Plaintiff, v. OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY, an Oregon corporation; and UNION PACIFIC RAILROAD COMPANY, a Utah corporation, Defendants.	Case No. 379083 NOTICE OF APPEAL AND DESIGNATION OF RECORD Hon. Alfred T. Sulmonetti Circuit Judge

TO: The above-named defendants; and

Walter J. Cosgrave, 622 Pittock Block, 921 SW Washington, Portland, Oregon 97205, of attorneys for the defendants.

TAKE NOTICE that the above-named plaintiff, State of Oregon, by and through its Transportation Commission, successor in interest to the State Highway Commission, does hereby appeal to the Court of Appeals of the State of Oregon from that certain Judgment Order filed in the above-entitled cause on July 17, 1974, and entered nunc pro tunc as of June 27, 1974.

Plaintiff designates as the record in this case, the trial court file the Exhibits, the entire transcript including all of the testimony and other proceedings, and all of the instructions

Department of Justice
100 State Office Building
Salem, Oregon 97310
Phone 378-4400

given and requested by the parties.

DATED July 26, 1974.

LEE JOHNSON
Attorney General
W. MICHAEL GILLETTE
Solicitor General

/s/ John R. McCulloch, Jr.
John R. McCulloch, Jr.
Assistant Attorney General
Of Attorneys for Plaintiff

I certify that I served the foregoing Notice of Appeal and Designation of Record upon Walter J. Cosgrave, of attorneys for the defendants, by depositing in the United States Post Office at Salem, Oregon, a true copy thereof, in a sealed envelope with postage prepaid, addressed to the said attorney at 622 Pittock Block, 921 SW Washington Street, Portland, Oregon 97205, his regular mailing address.

/s/ John R. McCulloch, Jr.
John R. McCulloch, Jr.
Assistant Attorney General
Of Attorneys for Plaintiff

Department of Justice
100 State Office Building
Salem, Oregon 97310
Phone 378-4400

7310

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

February 10, 1976

ROBERT W. STRAUB
GOVERNOR

F. B. KLABOE
Administrator of Highways

NOTED
E. S. HUNTER

Mr. Glen Green
Division Administrator
Federal Highway Administration
P. O. Box 300
Salem, OR 97308

Attention Mr. H. A. Schell

Dear Mr. Green:

Paint Claim on East and West Fremont Intchgs.
Contracts 7310 and 7214
I-405-8(20)(21)(22)

On December 5, 1975 you requested information on three items relative to the inspection and painting of the structural steel for the East and West Fremont Interchanges. The information requested is not available in the State's files. We are reluctant to approach Canron or General Paint for this information at this time.

The State is presently engaged in serious negotiations with the respective contractors for the two projects. It is hoped that these negotiations will lead to settlement of the two claims. If these negotiations break down, we will attempt to get the information you request from the files of the other principals.

Very truly yours,

ORIGINAL SIGNED
WALTER J. HART
Walter J. Hart
Bridge Engineer

RECEIVED
STATE HWY ENGR
FEB 11 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

WJH:dh

cc E. S. Hunter /w/ encl.
C. T. Keasey /w/ encl.
L. B. Hampton /w/ encl.

Form FHWA 121 (Rev. 8-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 5, 1975

In reply refer to:

SUBJECT: Oregon Project I-405-8(20)(21)(22)
Paint Claim on the East & West Fremont Interchange
Kenneth Tator Report

FROM : G. L. Green, Division Administrator

TO : Mr. F. B. Klaboe, Administrator & State Highway Engineer
ATTN: E. S. Hunter

We have read Mr. Tator's report of November 11, 1975 on the Inorganic zinc paint coating failure of the East and West Fremont Interchange steel. To us this report seems to be the only logical explanation of the failure to date. The paper clip test for hardness appears to be the one testing procedure that we did not understand the importance of.

In order for us to assess our current position, can you obtain the following information for us?

1. Have you recorded in your inspection record the results of the paper clip test during the period attributed to failure?

2. What actual amounts of zinc paint the phosphoric acid curing solution were applied during this period? (From Mr. Campbell's comments, it looks like this information is available in his files or in General Paint's files.)

3. Does the State, Canron, or General Paint have daily records of the sub-strata temperature, the ambient temperature, the relative humidity, and/or air circulation in the curing section of the paint building?

To date we do not know, formally, the State's position on this claim. We will continue to keep abreast of all information submitted but will not make any commitments until your position is submitted.

G. L. Green

RECEIVED
STATE HWY ENGR
DEC 8 '75
REFER TO
Hart
FOR
Info | Inves | R/D | D/R | Sign | Act | File

RECEIVED
DEC 8 1975
BRIDGE SECTION
NOTED
W. J. HART

cc
OSHD (HART)
OSHD (COULTER)
FHWA (RUTLEDGE)

7310

43

OREGON STATE HIGHWAY DIVISION

ROBERT W. STRAUB
GOVERNOR

F. B. KLABOE
Administrator and
State Highway Engineer

Salem, OR 97310
January 22, 1976

NOTED
E. S. HUNTER

RECEIVED
STATE HWY ENGR
JAN 22 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd, Right of Way Engineer
State Highway Division

NOTED
F. B. KLABOE

SUBJECT: Oregon Project I-405-8(4)
Fremont Bridge Section
Union Pacific Railroad
File No. 36087 (L-6682)

The problems which you brought to our attention in your December 10, 1975 letter were discussed during our recent review. I have replied to the problem of deposit on this review report written to you and believe that the railroad negotiations are uncommon.

They require judgment and there is no way possible to deposit money into court until the actual decision to file condemnation is made. Interest payments such as this, in my opinion, are part of the overall decision that is made during these negotiations by administration or whoever to accomplish the job.

I believe in general that they should be participating but due to your program manual and your regulations, decisions will have to be made based on the circumstances that we work under.

JBB:ha
cc R. L. Schroeder
cc Jack Sollis
cc Neil Flanagan

F. B. Klaboe ✓
L. W. Rulien

7310

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Box 300
Salem OR 97308

DATE: December 10, 1975

In reply refer to:

NOTED
E. S. HUNTER

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
Union Pacific Railroad, File No. 36087 (L-6682)

FROM : G. L. Green, Division Administrator

TO : Mr. F. B. Klaboe, Administrator & State Highway Engineer

Assistant Attorney General Jack L. Sollis' letter, dated May 20, 1975, provided additional information concerning the question of whether or not Federal funds would participate in $31,825 relative to depositing monies into court for use of the railroad. The matter has been reviewed and Federal funds will participate in our pro-rata share of the $31,825.

We are concerned about the State's procedures relative to depositing into court for the benefit of the owner, an amount not less than the State's approved appraisal of the fair market value of such property. This is a requirement of Title III of Public Law 91-646. In addition Federal participation is limited in those cases where the State does not follow the deposit procedures set forth in paragraph 5-J of Federal-aid Highway Program Manual, Volume 7, Chapter 1, Section 3.

The problem of inadequate deposit, late deposit, or failure to deposit, has been a factor in complicating Federal participation in the subject file, the Portland Traction Company file, and most recently the Southern Pacific file at Mapleton. While depositing may involve legal matters, under Federal-aid procedures it is a responsibility of the State Highway Division to make proper deposit in order to ensure full Federal participation.

We request your review of this matter and would appreciate discussing the matter at the time we have a meeting covering the Right of Way Management Review which was forwarded to you on October 30, 1975.

G. L. Green

RECEIVED
STATE HWY ENGR
DEC 11 '75
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

cy Rubiew

cc
OSHD (Boyd)
OSHD (Mitchell)
OSHD (Sollis)

#7310

KENNETH TATOR ASSOCIATES
2020 MONTOUR ST. • CORAOPOLIS, PA. 15108 • (412) 262-2663

PROTECTIVE COATINGS (PAINT) CONSULTANTS: Testing • Instruments • Inspection • Corrosion Engineering

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310
LEE JOHNSON
ATTORNEY GENERAL

F. B. Klaboe
Administrator
Highway Department
140 Highway Building
Salem, Oregon 97310

COATING FAILURE ON THE FREMONT BRIDGE
PORTLAND, OREGON

RECEIVED
STATE HWY ENG.
NOV 17 '75
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Art | File

cy Hart - Barre 11-18-75

Kenneth P. Tator

Kenneth P. Tator
Kenneth Tator Associates
2020 Montour Street
Coraopolis, PA 15108

November 11, 1975

INTRODUCTION

The following commentary can be considered a summary of my opinions regarding the failure of the zinc-rich coating applied to the Fremont Bridge. As you are aware, I was not involved in the pending litigation, nor was I aware of the coating failure until the latter part of 1974. Accordingly, I did not see the failing coating on the bridge, did not see Canron's coating facilities, nor do I have any first-hand knowledge of many of the details regarding the coating failure. However, on the other hand, there is a great deal of information regarding the failure available through correspondence, reports, and photographs. In studying the information supplied to me, I feel the following questions (phrased below with my summary answer) are most relevant to the coating failure. Accordingly, I shall direct my subsequent discussion along this outline.

1. Were the painting specifications for the bridge sufficient to obtain a suitably protective job?

   SUMMARY ANSWER: The painting portions of the specifications for the bridge provide sufficient latitude for a prospective bidder to select a coating system from a number of manufacturers, and to apply that system using the equipment, methods, and techniques he selects. The specifications, if followed, would produce a satisfactorily coating job sufficient for long term protection (fifteen or more years) to the bridge steel.

2. Did the aggressiveness of the Portland environment cause the coating failure?

   SUMMARY ANSWER: The Portland environment in the vicinity of the Fremont Street Bridge is relatively mild compared with many other environments where untopcoated inorganic zinc-rich coatings have performed satisfactorily. The Portland environment did not cause the massive failure of the zinc-rich coating on the bridge.

3. What did cause the failure?

   SUMMARY ANSWER: Insufficient cure of the zinc-rich primer prior to exposure to a wet weathering environment appears to have been the predominant factor.

4. Was Canron's application responsible for this insufficient cure?

SUMMARY ANSWER: Deficient application of the curing accelerator of the post-cured RustBan 193 and exposure of RustBan 191 to the environment prior to its achieving sufficient self-cure are responsible for the failure.

1. WERE THE PAINTING SPECIFICATIONS FOR THE BRIDGE SUFFICIENT TO OBTAIN A SUITABLY PROTECTIVE JOB?

The painting portion of the specifications for the bridge--State of Oregon "Standard Specifications for Highway Construction" 1964 and Oregon State Highway Department "Special Provisions for Highway Construction and Supplemental Standards Specifications, Stadium Freeway, Unit A, East Fremont Interchange"--is typical in scope and content of a zinc-rich coating system specifications for large structures such as bridges, chemical plants, etc.

Zinc-rich primers are considered in the industry as being somewhat more difficult to apply and topcoat than more widely used conventional coatings such as alkyds, epoxy esters, and other synthetic resin barrier coatings. Accordingly, where a large amount of steel is to be coated with a zinc-rich primer most knowledgeable specifiers will include "red flag" conditions in the specifications to alert a prospective bidder that this coating is different than others he may be used to applying. Strict observance of these "red flag" conditions do not necessarily guarantee a satisfactorily protective job--although violation of any one of them will lead to a high probability of premature zinc-rich coating failure. The "red flag" conditions in the OSHD specification are typical of those included in other major zinc-rich coating specifications; such as the degree of blast cleaning, anchor pattern, number of coats and color, time of painting after blast cleaning, weather conditions for painting, requirements for agitation and spray application for the inorganic zinc-rich primer, etc. In fact, many of these requirements are standard requirements in any painting specification,regardless of the nature of the coating being applied, and can be considered "good painting practice." Accordingly, I cannot agree with Canron that the OSHD specifications are "design specifications carried to the 'nth degree."

The specifications for painting the bridge allow the prospective bidder to select the coating of their choice from recognized list of approved inorganic zinc-rich coatings. In fact, Canron solicited quotations from a large number of paint companies, and finally narrowed their choice down to three competitors. Ultimately, for reasons best known to them, they selected Enjay.

Except for OSHD specification requirements consistant with good general painting practice for zinc-rich primers, the specification, with regard to application procedures and

techniques, is not restrictive. There is wide latitude within the specifications requirements for the applicator's choice of most application specifics, such as method of blast cleaning, choice of abrasive, choice of spray application equipment, air and fluid pressures, tips, caps and needles, environmental control, etc. The specification is designed to allow maximum coordination and interface between the coating applicator and coating manufacturer. This, of course, is important on any painting job.

I feel, then, that the OSHD specification is not a repressive, dogmatic, design specification--but, in fact, is a well written performance specification designed to emphasize or "red flag" potential problem areas in application and to achieve harmony and close working arrangements with the coating manufacturer and applicator. To this end, I feel the specification, if followed in letter and spirit, would result in a satisfactory long-term protective coating system applied to the Fremont Bridge.

2. DID THE AGGRESSIVENESS OF THE PORTLAND ENVIRONMENT CAUSE THE COATING FAILURE?

With all due respect to Mr. Saroyan, I do not feel the Portland environment caused the rapid, premature failure of the zinc-rich primer. While Mr. Saroyan's chemical explanation of SO_2 hydrolysis to form sulfuric acid which then attacks the zinc to form zinc sulfates is indeed correct; this reaction does not proceed as imagined as a result of a number of factors. The first is that, in my opinion, the SO_2 environment in Portland, when compared to many other cities, is relatively mild. Zinc-rich coating systems perform well in relatively severe chemical fume industrial environments such as those encountered in steel mills, chemical plants, fossil fuel power stations, etc., where the SO_2 concentration is expected to be considerably higher than that recorded in Portland.

Also, not all SO_2 in the environment would hydrolze ultimately into sulfuric acid which would contaminate the bridge. Any sulfuric acid formed by hydrolysis with rain water or atmospheric moisture would be very dilute with a pH very close to neutral. The zinc reaction products in neutral or near neutral environments are usually hydrated zinc oxides, zinc hydroxide, and zinc carbonates, all of which have an alkaline pH. This alkalinity tends to neutralize weak acids and eliminate or moderate their effect. Furthermore, other influences will reduce the rate of chemical attack on the zinc--such as passivation by formation of reaction products, partial encapsulation of the zinc by the sodium-lithium silicate binder, and chemical or physical polarization of both the anodic and cathodic reactions.

That the presence of SO_2 and other acid hydrolyzing gasses in the environment do not aggressively attack zinc-rich coatings or other materials is empirically determined by the abundantly successful use of susceptible materials of construction (such as galvanize, aluminum, and others) in the Portland area. RustBan zinc-rich primers exposed on test panels in the immediate vicinity of the bridge have not failed by rusting or excessive salt formation after a number of years' exposure. Industrial test stations KENNETH TATOR ASSOCIATES maintains in a steel mill in Pittsburgh and at a ferric chloride plant in Detroit reveal that zinc-rich coatings (including water based inorganic zinc-rich coatings) have unexpectedly good resistance to even relatively aggressive acidic environments, even when untopcoated. This does not mean to say that acid attack does not occur--but it definitely does not occur at such a fast rate that total failure of a zinc-rich primer can be expected within a matter of months as apparently was the case on the Fremont Bridge.

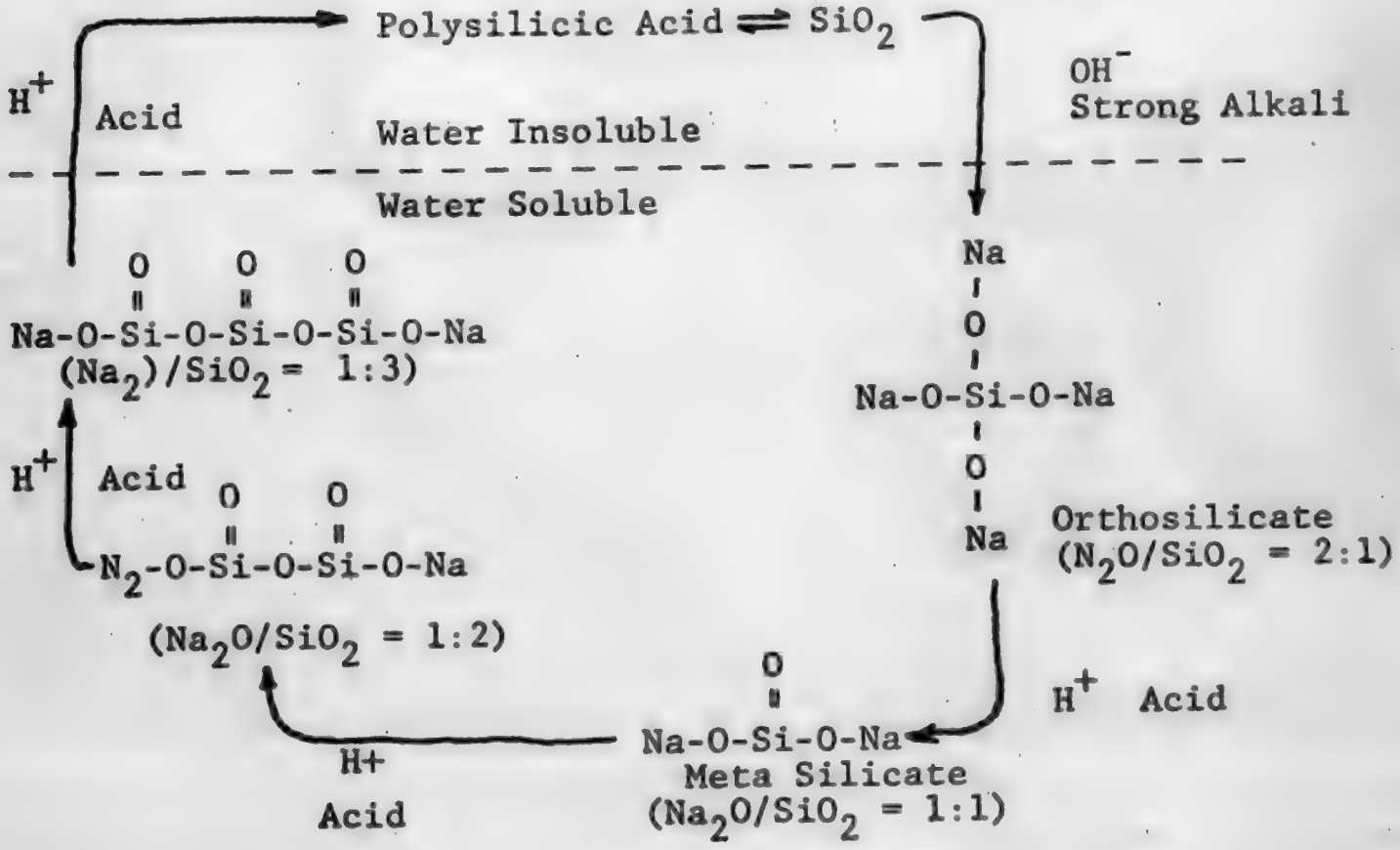
3. WHAT DID CAUSE THE FAILURE?

It is felt that insufficient cure of the RustBan 193 (and also the 191 that failed) was a predominating factor in the failure of the Fremont Bridge coating. The high alkalinity detected by Mr. Lowry (page 264 and elsewhere in his deposition); the softened zinc-rich coating (mentioned on page 186 and elsewhere); the apparent loss of zinc-rich primer thickness (pages 259, 359 and elsewhere); excessive zinc salting; ultimate rusting of the underlying steel substrate; and blistering and bubbling of the vinyl topcoat can best be explained by insufficient curing of the sodium-lithium silicate in the RustBan zinc-rich primers.

The chemistry of the curing reaction has been explained by Mr. Saroyan in a number of his reports. The chemistry, pretty much as he has written it, is summarized as follows:

Silicate Reactions

(Both Sodium and Lithium Silicate React In A Similar Fashion)



These reactions indicate, as the ratio of Na_2O to SiO_2 decreases, the molecule becomes more water insoluble. To decrease the ratio (in order to achieve desired water insolubility) an acid is added in progressive steps. At the Na_2O/SiO_2 ratio of 1:3 sufficient insolubility is obtained to allow zinc-rich binder formulation. However, in order for complete water insolubility to occur additional acid must be added to the mixture. With RustBan 193, this would be done during the application of the post-curing accelerator 6851.

However, what Mr. Saroyan does not say, and what I feel may be a major issue, is the rate at which these reactions occur. Briefly, after application the water-base zinc-rich primer dries by water evaporation (this occurs quite rapidly, and within a period of only a few minutes in most cases the coating becomes dry to the touch). However, further water evaporation must occur in order to crystallize the water-glass matrix. As Mr. Saroyan points out, this matrix is still water soluble and must cure (by acid addition) to be water insoluble. With water-base self-curing zinc-rich coatings (such as RustBan 191) curing results from reaction with the environment. The reaction can take either or both of two forms: Bicarbonates or other additives are formulated into the paint which hydrolyze with moisture in the air to form carbonic acid; or a slower but efficient atmospheric reaction involving the hydrolysis of carbon dioxide with water to form carbonic acid. RustBan 191, to my knowledge, utilizes the CO_2 hydrolysis cure.

For post cured water-base coatings (such as RustBan 193) the direct addition of an acid such as sulfuric, hydrochloric or phosphoric is used. Phosphoric acid is preferred because it is a weaker acid and can be more readily buffered from attacking the zinc dust in the paint film, and as well it forms less soluble reaction products with the zinc. Ultimately however, the coating after completion of these reactions becomes hard, insoluble, and after excess free acid is removed, has a neutral pH. The coating is relatively impervious to water and in normal atmospheric environments (neutral or near neutral within a pH of hydrolyzing contaminants from approximately 5.5 to 10) will react to form various zinc carbonates, oxides, and hydroxides and to a lesser degree zinc chlorides, zinc sulphides, and sulfates, etc. (These latter reactions dependent primarily upon atmospheric contaminants.) As Mr. Saroyan points out, these salts are beneficial to the zinc-rich coating except when they are in excess.

However, it is evident that the salts formed on the bridge steel were far in excess. Furthermore, there is general agreement that the applied zinc-rich coating apparently lost thickness after application in the Canron painting

facility, and upon later measurement in the Portland area. A soft zinc-rich coating was observable on occasion and in general the RustBan primer was so soft that the use of the paper clip test was discouraged as a measure of coating quality. Upon attempting to apply the vinyl topcoat, severe blistering and bubbling occurred. In my mind's eye, rather than being unexplainable phenomena--all this is indicative of water solubility of the sodium-lithium zinc-rich binder.

Excessive zinc salts, as Mr. Saroyan indicates, will result from aggressive atmospheric attack. However, they also will result if the zinc-rich binder is not insoluble and water can leach it, exposing or loosening zinc dust particles from the surface of the film. These particles will readily react in a neutral or near neutral environment to form zinc carbonate products (as opposed to zinc sulfate), and because they are loosely held, will wash from the surface as more binder leaches out during periods of precipitation. Mr. Lowry's observation of high surface alkalinity can be explained by the fact that the leached water soluble matter is highly alkaline, and after repeated washings, this alkalinity would still persist. Also, this same phenomena would explain the rather high loss of coating thicknesses occurring between Vancouver and Portland. It is our experience that zinc-rich coatings of all types, including water-base inorganic zinc-rich coatings, do not suffer significant loss of coating thickness under normal conditions in as little as three to six months. In fact, work that we have done indicates that there is no significant loss of thickness of water-base inorganic zinc-rich coatings after years of exposure in aggressive marine and salt environments. Furthermore, the paper clip test or rubbing with a metallic object such as a Canadian quarter has always been, in our opinion, a good field indication as to whether the degree of cure or insolubilization of the zinc-rich primer is adequate. If the coating is "punky", soft and cheese-like, the coating is not sufficiently cured. On the other hand, if a bright metallic luster is exposed upon rubbing, the coating is suitably cured. The "common paper clip test" as described in Steel Structures Painting Council Specification 12.00 "Guide to Zinc-Rich Coating Systems" was written to emphasize that properly cured zinc-rich coatings are hard and abrasion resistant.

Therefore, in my opinion, the major fault with the Fremont Bridge coating was that it was insufficiently cured and insolubilized. However, why this condition came to be is less certain.

After application of the zinc-rich coating, as mentioned previously, the coating "sets" by water evaporation culminating in crystallization of the silicate matrix. At this point, the zinc-rich coating is still water soluble and requires an acidic reaction to make it insoluble. However,

the rate at which this crystallization phase of the curing occurs is dependent upon a number of things, including substrate temperature, ambient air temperature, relative humidity, and air circulation, as well as thickness of the coating at any given spot. Without questions, the longer one waits prior to application of the acidic post-curing agent the greater the probability of the crystallization reaction having occurred completely. If the acidic curing agent is applied prior to complete crystallization, the coating will be softened somewhat, and the acid will react with an "unset" binder, with the ultimate result that further crystallization, and homogeneity within the film will be permanently disrupted. Ultimately, upon exposure to precipitation, the film, not being completely insoluble, will leach, resulting in the observed failure.

In addition, the amount of accelerator applied is extremely important. I feel that the greatest error was in applying too little accelerator as opposed to applying too much. Application of too much accelerator will cause the phosphoric acid accelerator to flow down over the surface, and collect on horizontal surfaces. In time, the excess acidity at these areas of accelerator collection may attack the zinc-dust particles. However, I feel that this happened, if at all, only in localized, predictable areas.

Rather, however, it is felt that insufficient accelerator was applied in the Canron painting shop to provide adequate cure to the lithium-silicate zinc-rich to withstand the precipitation in Vancouver and Portland. The effect of insufficient post-curing acceleration application would be that after crystallization (presuming crystallization was complete at the time of the accelerator application) the coating would not be sufficiently insolublized to water prior to Canron's placing it in the atmosphere to await barge shipment to Portland.

The rate at which the acidic neutralization and insolublizing reaction occurs again is a function of a number of factors including substrate and ambient temperature, zinc-rich coating thickness, amount of accelerator applied, humidity, circulation, etc. After application of the curing solution, the members were moved into the Vancouver environment in a matter of minutes to as long as a few hours.

The time required for these coating deficiencies to become apparent is again based upon a variety of factors such as the degree or extent to which the curing reaction occurred, the interval between coating operations and first incident precipitation, and as always, temperatures and humidities and other ambient conditions. It is entirely conceivable that much of the defective coating would not be detected in the Canron facility as the only manifestation would be the relative softness of the coating (which was disregarded by everyone at the time), and surface alkalinity--

which apparently was not measured. The formation of zinc salts, and leaching of the silicate binder resulting in lessening coating thickness would be noticeable only upon continual exposure to the environment over a period of time.

Mr. Saroyan and others have indicated that rust staining over the zinc surface from the top flange of girder sections caused or accelerated the failure. Furthermore, a series of chemical equations were presented to substantiate this. Again, with due respect to Mr. Saroyan, I feel this rust staining neither caused nor measurably accelerated the coating failure. Light brown rust--the kind causing staining is Fe_2O_3--insoluble in water and fully oxidized in stable form. Accordingly, it will not readily react as dissociated Fe^{++}ions in solution as Mr. Saroyan indicates. While there is a dissimilar metal cell established, the rate of reaction is so slow, due to a number of reasons that it is of no practical consequence. In the field, I have never seen rust staining on a zinc-rich primer that I felt caused premature failure, or diminished film thickness.

In my opinion, this "deficient zinc-rich cure theory" is the most plausible explanation for the observed failure and "unexplainable" phenomena observed during the course of coating application and bridge construction.

4. WAS CANRON'S APPLICATION RESPONSIBLE FOR INSUFFICIENT CURE OF THE ZINC-RICH PRIMER?

Unfortunately, despite what I feel were Canron's intentions and best efforts, premature failure of the zinc-rich primer did occur. Furthermore, I feel this failure resulted from insufficient curing of the zinc-rich primer prior to exposure to moisture and weather.

With RustBan 191, this happened because the coated steel was placed outside in a cold and/or damp environment too soon after paint application. As mentioned previously, the period of time after application required for the coating to become water insoluble is dependent upon a variety of environmental factors.

The same reason for failure applies to RustBan 193 as well--except that a curing accelerator was applied after application of the zinc-rich paint in order to allow a more rapid exposure to the environment. If the curing accelerator were applied uniformly in the amount recommended by Enjay over the zinc-rich primed surface, no failure would have occurred on the Fremont Bridge. In retrospect, however, this did not happen and the observed failure resulted.

In my opinion it would be relatively easy to apply insufficient accelerator. Enjay's calculations and recommendation regarding application of the accelerator are most likely, based upon stoichiometric calculations. Mr. Saroyan, in one of his reports, had conducted similar calculations that are in apparent agreement with Enjay's recommendations. However, in the field, under what could be described as marginal lighting conditions, and application to a relatively complex surface of a "water clear" material; I feel it is almost inevitable to expect deficient application in some areas and too much accelerator applied in other areas. Psychologically, as it is common knowledge (even among painters) that phosphoric acid attacks zinc--and that RustBan 193 will self cure under the right conditions even if no accelerator were applied--perhaps less importance was placed upon application of the accelerator. There is, of course, no way to measure the application of the accelerator except by calculation of coverages which are only averages at best.

If the curing accelerator is applied as Enjay recommends--completely wetting the zinc-rich primer--the coating should be adequate to withstand exposure to a wet environment in as little as fifteen minutes or so. However, the longer the coating cures before environmental exposure, the better.

If the surface is not sufficiently wetted, the coating cannot suitably cure and insolubilize, and failure in the northwest winter environment is inevitable.

In addition to insufficient curing, it is felt that some failure can be attributed to skips, misses, and holidays inherent in any large structural steel coating job--and as well, coating thicknesses less than that specified. Mr. Lowery, in his deposition, has already allowed to some of these discrepancies.

#7310

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

DATE: August 18, 1975

In reply refer to: 1041DA

SUBJECT: Oregon Projects I-405-8(20)303 and I-405-8(22)304, West Fremont Intch./East Fremont Intch

FROM: Glen L. Green, Division Engineer

TO: Mr. F. B. Klaboe, Administrator & State Highway Engineer
Salem, Oregon

Mr. Keasey's letter dated August 11, 1975, requested approval of the subject State Force Orders to establish accounting proceedures for legal expenses incurred in litigation of claims on these projects. The total estimated cost is $140,000 with Federal participation of approximately $129,000.

In accordance with the Federal Aid Manual Vol. 1, Chapter 4, Section 2 these State Force Orders are approved effective October 1, 1974, establishing accounts for litigation costs.

G. L. Green

Enclosure
State Force Order No.s 7 and 22

cc:
Washington D.C. (HHO-32)

RECEIVED
STATE HWY ENGR
AUG 20 '75
REFER TO
FOR
Info | Invest | R/D | O/R | Sign | Act | File

NOTED
H.S. COULTER

Form 81-734-1100

OREGON STATE HIGHWAY DIVISION

Order for State Force Work

Contract No. 7310

APPLYING TO CONTRACT PROJECTS

Order No. _____

Section East Fremont Interchange Date Oct. 1, 19 74

Highway Stadium Freeway F.A.P. No. I-405-8(22)304

County Multnomah Prefix 626-1017 Account No. 286-22.

Description of Work To Be Done:

Work required for litigation.

Recommend Approval as of 10-1-74

Approval Recommended as of _____

APPROVED EFFECTIVE DATE 10-1-74
Contingent upon modification of project agreement if additional funds are required.

BY E. J. Velsch

TITLE for Dist. Engineer

DATE 8-18-75

FEDERAL HIGHWAY ADMINISTRATION

Location by Station Numbers:

East Fremont Interchange.

Estimate of Quantities and Costs:

$80,000

Explanation:

Litigation initiated by the Contractor.

INSTRUCTIONS

Submit a separate order for each piece or kind of state force work to be undertaken. Use the account number applying to that work as indicated in the account numbers assigned to state force work on contract jobs.

Five copies of the order are to be submitted to Salem. After final approval, two copies will be sent to the Regional Engineer and one copy to the Resident Engineer.

Project authorization . . . . . $ 13,928,737

Present estimate of project cost, including

$ 80,000 for work under this order $ _____

Expected under-run / over-run (amount) . . . . . $ _____

Expected under-run / over-run (per cent) . . . . . _____

Space to right of this line is for use of Salem Office

Submitted by: _____ Resident Engineer

Approval Recommended: _____ Regional Engineer

Approval Recommended: R. W. Ellison for: Construction Engineer-or Bridge Engineer

Approved: _____ Construction Engineer

7310

LEE JOHNSON
ATTORNEY GENERAL

DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
106 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

CC Schroeder

May 20, 1975

Mr. G. L. Green
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, Oregon 97308

Re: Oregon Project I-405-8(4)303
Fremont Bridge Section
File 36087, L-6682 Union Pacific Railroad
Your File 1041RW

Dear Mr. Green

In reply to your letter of March 3, 1975, concerning the above file in which you indicated that the Federal Highway Administration would not participate in $31,825.00 of the settlement because you did not feel the Highway Division had acted promptly to file a condemnation case after the permit of entry had been signed has been referred to me for reply.

The interest referred to in your letter was computed on the reviewed appraisal of $190,000.00 and was the interest which had accrued from July 13, 1969 to April 27, 1972, (the date the Complaint was filed).

I do not feel that it is proper to compute out the interest accumulated on the $190,000.00 between those two dates and code them as nonparticipating for the following reasons.

(1) At the time the permit of entry was signed the railroad had not yet hired an appraiser to appraise the property on their behalf in order to negotiate with the State. The railroad consumed almost a year and a half in securing permission to hire an appraiser and to have the appraisal made so that we could commence meaningful negotiations on the property.

(2) During this same period of time we were reworking the restrictions to be placed on the property with the railroad

NOTED
R. L. SCHROEDER

RECEIVED
MAY 22 1975
Office of
Assistant State Highway Engineer

and with the City of Portland Fire Marshall and held several meetings with those people in order to work out the details of the use restrictions so that they would satisfy the City of Portland yet allow as much flexibility as possible for the use of the property underneath the bridge. The use restrictions were very complicated and difficult to arrive at and despite all of the time spent trying to work out the exact language, I believe that they were changed once or twice after the Complaint was filed.

(3) On June 9, 1971, the railroad made an offer to settle to the Highway Division and I communicated this to Mr. T. W. Litchfield who was at that time the Railroad and Utilities Engineer. This matter was analyzed very thoroughly by the Highway Division and on January 25, 1972, we suggested that possibly the National Carloading Building could be relocated without the high cost that they had indicated would be involved. This was turned down by the railroad. I might mention at this time that I made several trips to Portland examining the property and exploring all possibilities for relocation of the National Carloading Building and other matters during the time we were negotiating with the railroad.

I feel that the State was obligated to give the railroad ample time to secure an appraisal and negotiate with them in an attempt to arrive at a settlement. Although the time was rather long this was a difficult and complicated file and under the circumstances I feel that the action taken by the Highway Division was reasonable.

In addition to this, it is my feeling that the interest that accrued during the period indicated in your letter has no bearing on the settlement as the settlement did not include any interest. The use of interest computed as only one of the justifications for settlement was merely to show what the consequences would be if we were to go back and try the case again, and also what interest would be due now if the case was not appealed. I do not believe that the Federal Highway Administration has a valid legal reason for refusing to participate in the $31,825.00 as specified in your March 3 letter.

In conclusion, I feel there were many valid reasons for the settlement and that it is improper to pick one item based on the interest accumulated on a certain figure over a specified period of time as being nonparticipating. While I realize that the railroad was extremely slow in getting their appraisal, they did keep asking for an extension of time in order to have their appraisal completed and be in a position to negotiate

with the Highway Division toward a possible settlement.

I feel that the settlement was advantageous to the State and I feel that the entire settlement with the exception of the lots is eligible for federal participation and would therefore request that the amount of $31,825.00 be reclassified as participating.

Sincerely

Jack L. Sollis
Assistant Attorney General

JLS:sab

7310

FORM E-20 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
April 24, 1975

To: Mr. Marion Craft
Asst Metro Engr

SUBJECT: East & West Fremont Int.
Paint Claim

O F F I C E

Next week (April 28- May 2) Mr. Charles Lobaugh and I are scheduled for another trip to Vancouver, BC. to hopefully complete the examination of Canron Ltd's records. This work is required by the current litigation now in progress on both the West and East Fremont Interchange projects. We would appreciate approval of OUT OF STATE EXPENSES for both of us for the following estimated amount:

Meals	$100
Lodging	200
Misc	20
	$320

We will travel with our attorney, Mr. Les Hampton, who will make the transportation arrangements.

John D. Howard
Resident Engineer

JDH:tla

cc: C. Lobaugh

RECEIVED
STATE HWY ENGR
APR 28 '75
REFER TO
FOR
Info | Inves | R/D | D.R | Sign | Act | File

Approved - Marion Craft
Metro Const Engr.
4-25-75

APPROVED
STATE HIGHWAY ENGINEER
DATE: 4-28-75

SP*83479-794

#7310

Robert H. Straub
xxxxxxxxxx

March 18, 1975

1135-5

Mr. Paul L. Heineman
Howard, Needles, Tammen & Bergendoff
1805 Grand Avenue
Kansas City, Missouri 64108

Dear Mr. Heineman:

Fremont Bridge Approaches
Custom Duty on Shop Drawings

We concur with your position that custom duty on the shop drawings for the East and West Fremont Interchanges is the proper responsibility of the respective general contractors.

We will consider a request for reimbursement of your costs if the general contractors fail to acknowledge this responsibility and you are forced to make direct payment to avoid late penalties.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

bc F. B. Klaboe
E. S. Hunter
H. S. Coulter (enc.)
C. T. Keasey "
Walt Hart
Jack Sollis "
R. N. Bothman "

WJH:dh ja

HOWARD NEEDLES TAMMEN & BERGENDOFF

RECEIVED
STATE HWY ENGR
MAR 6 '75
REFER TO
FOR
Info | Inves | R/D | D R | Spec | Act | File

February 28, 1975

Oregon Department of Transportation
State Highway Building
Salem, Oregon 97310

Attention: Mr. A. E. Johnson
Deputy State Highway Engineer

Re: Fremont Bridge Approaches, Portland, Oregon
Custom Duty on Shop Drawings

Gentlemen:

Enclosed are copies of our correspondence with the two general contractors regarding the customs claim on the shop drawings. We understand the state is involved in lawsuits with the general contractors regarding other matters pertaining to the subject contract. Therefore we consider our approach to the general contractors, directly, might resolve this customs claim. Contrary to the statement in our letter to the contractors, we may elect to pay the custom claim within 30 days to avoid further penalties.

While we hope this approach will result in direct reimbursement of our costs, we are not excluding the future necessity of recovering this cost from the state under terms of our engineering agreement. We trust that you recognize this is a cost unfairly directed to us and beyond the scope of responsibility in our engineering agreement.

We will keep you fully informed, as we have in the past, of developments in this case.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

Paul L. Heineman
Enclosures

RECEIVED
MAR 7 1975
BRIDGE DIVISION

Planning Engineering Architectural Services

1806 Grand Avenue, Kansas City, Missouri 64108, 816 474-4500

Partners H.C. Lamberton, Jr., James F. Finn, Paul L. Heineman, Joseph H. Looper, Robert O. Orange, Bernard H. Rottinghaus, Gerard F. Fox, William M. Wachter, George K. Erganian, Browning Crow, Charles T. Hennigan, Edgar B. Johnson, Daniel J. Watkins, Daniel J. Spigel
Associates Rex M. Whitton, Daniel J. Appel, William C. Meredith, Orrin Riley, Francis X. Hall, Robert W. Richards, Robert S. Coma, Don R. Ort, John L. Cotton, Donald A. Dupies, Frederick H. Sterbenz
Offices Alexandria, Va., Atlanta, Baltimore, Baton Rouge, Boston, Buffalo, Cape Coral, Fla., Charleston, W. Va., Chicago, Cleveland, Dallas, Fairfield, N. J., Indianapolis, Kansas City, Miami, Milwaukee, Minneapolis, Newark, Del., New York, Orlando, Overland Park, Kan., Philadelphia, Richmond, Seattle, Washington, D. C., Woodbridge, N. J., Lisbon, Rio de Janeiro

NOTED
W. J. HART

HOWARD NEEDLES TAMMEN & BERGENDOFF

February 28, 1975

Andersen-Hannan
P. O. Box 13367
3427 N. W. Halsey Street
Portland, Oregon 97213

Re: Fremont Bridge Approaches, Portland, Oregon
Custom Duty on Shop Drawings

Gentlemen:

On November 18, 1974, our firm received notice from the U. S. Customs Bureau demanding payment of approximately $9,800 for duties, penalties, etc. on structural steel shop drawings we received from your subcontractors on the referenced project. (Copy attached.)

By terms of your general contract for the project with the State of Oregon, all costs of preparing, shipping and processing of shop drawings are the responsibility of the Contractor or by his subcontractors to him. We had been assured by Canron that all custom requirements had been met.

Since the U. S. Customs Bureau had presented the claim to us directly with a time limit for reply, we had our attorneys prepare a petition opposing the claim. The reply to our petition reduced the claim to a total of about $1,200, a reduction of over $8,000 (see attached letter). Our attorneys indicate that further steps to oppose the claim to the Customs Bureau would cost more than the $1,200 with no assurance it would be decreased without even more costly litigation.

Although the final cost of resolving the matter is the responsibility of the General Contractor, we suggest it might be in the best of interests of all concerned for this reduced claim to be paid promptly. To avoid further penalty for delays, legal costs, etc., we are willing to pay the U. S. Customs Bureau claim on condition that you reimburse us that amount ($1,204.15) plus $1,200 for our legal costs and engineering salaries to date for opposing the original claim and securing the potential reduction of over $8,000. If we are not so authorized and reimbursed, we will not pay any claim until legally compelled to do so, thus presumably losing the potential reduction of $8,000. Then we would be obliged to institute legal proceedings to recover all of our costs. We are not aware of your contractual relations with your subcontractor,

Canron, Ltd., who may be responsible to you for this claim.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

Paul L. Heineman

PLH/mj

Enclosures

Copy to: Oregon Department of Transportation
State Highway Building
Salem, Oregon 97310
Attention: Mr. A. E. Johnson
Deputy State Highway Engineer

HOWARD NEEDLES TAMMEN & BERGENDOFF

February 28, 1975

Drake-Willamette
c/o R. E. Grant, Vice President, Construction
Donald M. Drake Company
1740 N. W. Flanders Street
Portland, Oregon 97209

Re: Fremont Bridge Approaches, Portland, Oregon
Custom Duty on Shop Drawings

Gentlemen:

On November 18, 1974, our firm received notice from the U. S. Customs Bureau demanding payment of approximately $9,800 for duties, penalties, etc. on structural steel shop drawings we received from your subcontractors on the referenced project. (Copy attached.)

By terms of your general contract for the project with the State of Oregon, all costs of preparing, shipping and processing of shop drawings are the responsibility of the Contractor or by his subcontractors to him. We had been assured by Canron that all custom requirements had been met.

Since the U. S. Customs Bureau had presented the claim to us directly with a time limit for reply, we had our attorneys prepare a petition opposing the claim. The reply to our petition reduced the claim to a total of about $1,200, a reduction of over $8,000 (see attached letter). Our attorneys indicate that further steps to oppose the claim to the Customs Bureau would cost more than the $1,200 with no assurance it would be decreased without even more costly litigation.

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Canron, Lt., who may be responsible to you for this claim.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

PLH/mj

Enclosures

Copy to: Oregon Department of Transportation
State Highway Building
Salem, Oregon 97310
Attention: Mr. A. E. Johnson
Deputy State Highway Engineer

Case Number	
	75-4501-10046
Port Name and Code	4501 Kansas City, Mo..
Investigation File No	KC08CM493014

NOTICE OF PENALTY OR LIQUIDATED DAMAGES INCURRED AND DEMAND FOR PAYMENT

TO:

Howard, Needles, Tammen & Bergendoff
1905 Grand Avenue
Kansas City, Missouri

DEMAND IS HEREBY MADE FOR PAYMENT OF $ 9,413.00, representing ☐ Penalties or ☐ Liquidated Damages assessed against you for violation of law or regulation, or breach of bond, as set forth below:

In 1969, 1970 and 1971 you received 5131 shop drawings by mail from Canada and Japan without paying the duty which was legally due. In addition to this penalty a demand is also made for the accrued duties of $404.15.

(continue facts on reverse)

LAW OR REGULATION VIOLATED	BOND BREACHED
19 United States Code, Section 1592	

DESCRIPTION OF BOND (if any)	Form Number	Amount $	Date

Name and Address of Principal in Bond

Name and Address of Surety on Bond	Surety Identification No.

If you feel there are extenuating circumstances, you have the right to object to the above action. Your petition should explain why you should not be penalized for the cited violation. Write the petition as a letter or in legal form; submit in (duplicate) (triplicate), addressed to the Commissioner of Customs, and forward to the District Director of Customs at 127 N. Central, Suite 400, St. Louis, Missouri 63105

Unless the amount herein demanded is paid or a petition for relief is filed with the District Director of Customs within 60 days from the date hereof, further action will be taken in connection with your bond or the matter will be referred to the United States Attorney.

Signature	Title	Date
BY: William K. Duncan	District Director	11/11/74

DEPARTMENT OF THE TREASURY

DEPARTMENT OF THE TREASURY

U.S. CUSTOMS SERVICE
St. Louis, Missouri

February 12, 1975

REFER TO

ENF-4-02-D:C&V DKH

Ronald B. Stang
Linde, Thmson, Van Dyke, Fairchild & Langworthy
900 Walnut Street
Kansas City, Missouri 64106

Re: St. Louis Customs District
Case: 75-4501-10046
Dated: November 4, 1974

Dear Mr. Stang:

The petition filed by you on behalf of Howard, Needles, Tammen & Bergendoff has been reviewed.

In 1969, 1970, 1971 the petitioner received shop drawings through the mail from Japan and Canada. These importations were not presented to Customs for payment of duties due.

The investigation of this case indicates there was no deliberate attempt on the part of the importer to avoid the payment of the duties due, but this happened through simple negligence. It is the decision of this office to remit the forfeiture upon payment of $800.00; plus $404.15, the amount that originally should have been paid as duty. The drawings were given a nominal value for duty purposes.

Your petition stated a desire to meet with Customs representatives to discuss this matter. Such a meeting would be held at the Customs office in St. Louis and may be arranged by contacting this office.

If you are not satisfied with this decision you may file a supplemental petition within thirty days in accordance with Section 171.33 of the Customs Regulations. The supplemental petition will be forwarded to the Regional Commissioner of Customs, Chicago, Illinois for consideration.

RECEIVED

1 2 [illegible]

Sincerely yours,

William L. Duncan

William L. Duncan
District Director

#7310

FORM S 30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

DATE March 6, 1975

TO File

FROM J. B. Boyd
Right of Way Engineer

RECEIVED
STATE HWY ENGR
MAR 6 '75
REFER TO
FOR
Info Invest R/W D.R. S.R. Air

SUBJECT Legal Settlement
File 36087, L-6682
Testimony House Bill 2423
State & Federal Fairs Committee
March 5, 1975

COPY to R/W 11

The Highway Division was represented at the hearing by J. B. Boyd, Right of Way Engineer and Jim Dixon, Relocation Supervisor.

The hearing began with testimony by Representative Kafoury. His testimony was routine; it appeared that he had sponsored the bill at the request of a group of people in his district from the Emanual Hospital Urban Renewal area. He was apparently also assisted in the effort by a Mr. Jim Forrester, Deputy Director of Legal Aid for Multnomah County. The main problems addressed were not really those of relocation. The Emanual Hospital problem is a problem in the theory of urban renewal, it has nothing to do with the secondary effect of relocation and whether it was done properly.

The problem that Mr. Jim Forrester brought to the attention of the committee, was the urban renewal activities in the West Burnside area and the plight of the Skidroad tenants. Being the theory that all persons relocated by virtue of code enforcement such as in those hotels and apartment houses in this area, should not be moved until such time as decent, safe and sanitary space is available for them in the area.

I presented a packet of information when it came my turn to testify relating the position of the Oregon State Highway Division. A copy of this memorandum is attached. Also with the memorandum were copies of the Uniform Act Public Law 91-646, two brochures prepared; one by the Oregon State Highway Division and one by the Federal Highway Administration and also a copy of our relocation study of a 100 past

ej
file
3-10-75

relocatees on the I-205 Freeway showing that generally, we had done a good job and we believed that the evolution of this act was proper and at the end the best way to extend the benefits was by making the present Oregon Statutes mandatory as opposed to optional.

Considerable questions ensued on the technical aspects of the Relocation Act; all of these questions I believe were answered properly. The general tenor of the committee was excellent, the questioning was brisk, but all in a positive vein. I believe that we responded properly and hopefully created more understanding of our procedures and of our solutions to the problem.

Other persons testifying were: Representative Kafoury, sponsor of the bill, Jim Forrester, Deputy Director of the Legal Aid in Portland and a Mr. Nelson who represents the Emanual Hospital Displaced Persons Association.

JBB:jk
cc: George Baldwin
F. B. Klaboe
Ralph Sipprell
Jim Dixon

73100

FORM 6-30

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

DATE March 5, 1975

TO File

FROM J. B. Boyd
Right of Way Engineer

NOTED
A. E. JOHNSON

SUBJECT File 36087, L-6682
Oregon Project I-405-8(4)303
Fremont Bridge Section
Union Pacific Railroad

I discussed this morning with Chairman Glenn Jackson, the settlement that we are in the process of making with the Union Pacific Railroad. He had previously approved the settlement in the amount of approximately $387,000; $27,000 of which was nonparticipating due to court costs. Now the Federal government is withholding participation on two items. 1. The value of the lots to be deeded to the railroad; and 2. The interest payment from July 13, 1969 to April 27, 1972. Their premise being, is that we withheld action on the filing of this suit too long.

Mr. Jackson is adamant that we attempt to collect this money. He believes that it is completely foolhardy to attempt to condemn the railroad and that we should have used all of our ability to negotiate. I would judge that top management was involved in this particular effort and that the interest payment should be participated in. He agreed because of the pressure from Union Pacific Railroad that we proceed to settlement, but take all the effort within our power to receive full Federal participation.

JBB:jk
cc: Glenn Jackson
F. B. Klaboe
R. L. Schroeder
Walt Barrie

NOTED
F. B. KLABOE

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STATE HWY ENGR
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REFER TO
GG
FOR
Info | Inves | R/D | D/R | Sign | Act | File

#7310

FORM S-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon 97310

DATE January 8, 1975

TO Memo to File

FROM J. B. Boyd
Right of Way Engineer

NOTED
A. E. JOHNSON

SUBJECT State v. Oregon-Washington Railroad and Navigation Company, Circuit Court, Multnomah County, Case No. 379083 L-6682, R-36087 - Proposed Settlement

The subject of the proposed settlement was discussed with Mr. Glenn Jackson on January 7, 1975. The problems of this file were discussed in detail. It was my indication that we believe, the legal staff and myself, that a settlement was in the best interest of the State. The settlement has the approval of Mr. F. B. Klaboe provided FHWA agrees.

The present cost to the State, if the verdict were to stand uncontested, will be $520,535 to pay the judgment interest that has accrued to date and the court costs. We believe that a settlement of $350,000 plus four lots under the bridge valued at $20,000 and $25,000 in costs is reasonable solution to the problem. The $370,000 will be participating and the $25,000 in costs are non-participating. All of the ramifications were discussed with Mr. Jackson and he concurs that it was in the best interest of the State to proceed on the settlement course. We are requesting the Federal Highway Administration to concur in this settlement.

JBB:rk
cc: F. B. Klaboe
R. L. Schroeder
Walt Barrie
Jack Sollis

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STATE HWY ENG.
JAN 9'75
REFER TO
RR
FOR
Info | Invest | R/D | DIR | Sign | Ltr

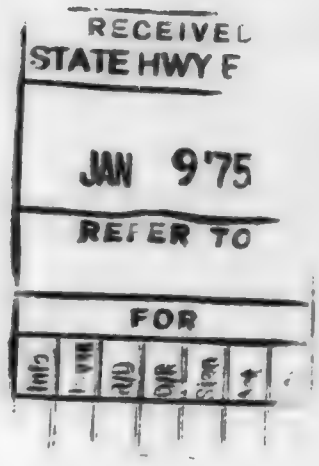
OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

January 8, 1975



TO: G. L. Green, Division Engineer
Federal Highway Administration

FROM: Jack L. Sollis, Assistant Attorney General

J. B. Boyd, Right of Way Engineer

SUBJECT: L6682 (R36087) - Proposed Settlement
State v. Oregon-Washington Railroad and Navigation Company
Circuit Court, Multnomah County, Case #379083

The proposed settlement of the above-entitled case has been negotiated with the Union Pacific Railroad subject to the approval of the Oregon Transportation Commission and the Federal Highway Administration. The settlement would be for $350,000 in cash plus the deeding to the Railroad of four lots now owned by the State underneath the Fremont Bridge subject to the same land use restrictions as were contained in the complaint on the subject file. The value of these lots by the latest appraisal is $20,000, thus the settlement would be in the amount of $370,000 for which federal participation would be asked.

The Railroad has also agreed to reduce payment of their cost bill from in excess of $35,000 to $25,000. This, however, is never an item of participation in any trial, and therefore should not be considered as an element in considering the justification for settlement for which federal participation is requested in the amount of $370,000.

In discussing the case with Mr. Hampton who tried it, I am sure that there is a strong possibility that the case might be reversed on one particular item. This item is for a damage item of $100,000 for site preparation for the relocated National Carloading Building.

The other item of damage which was somewhere in the vicinity of $250,000 based on the capitalized cost of insurance to protect the

Railroad from debris, vehicles and any other material that might fall off of the bridge on railroad property or personnel is a questionable item on whether this would be eliminated in the appeal, and therefore would very possibly still be an element in a new trial.

The Railroad had testimony at $630,000; the State's testimony was $190,000; and the verdict was $386,000.

If the verdict were to stand uncontested, it would cost the State right now $520,535 to pay the judgment interest that has accrued to date and the court costs. Attachment #1.

Going on the assumption that we would prevail on the one item of damage as being improper and secure a new trial, we would then be looking at a situation where if we were to secure a verdict of $250,000 two years from now (this being the approximate time it would take to run the appeal through the Court of Appeals and the Supreme Court and get the case retried) it would cost the State $331,885 to pay a verdict of $250,000 plus interest, plus the costs to the State for a new trial.

If we were to assume a verdict of $275,000 on the retrial, the total payment for the verdict accumulated interest and cost of trial to the State would be $363,573. If the verdict on the retrial were to be $300,000 the total cost to the State would be $405,510. Attachment 1. The above three figures that I have mentioned do not include court costs which would very likely remain in the vicinity of $35,000. However, as stated above, as they are a nonparticipating item, the court costs should not be considered in requesting Federal participation in the settlement of this file.

Because this is an extremely complex file and it is very difficult to assess or come up with any concrete evidence that there is no damage or that there is a minimal amount of damage other than providing an expert who says, in his opinion, there is no damage and gives his reason, the possibility of securing a verdict any less than from $250,000 to $275,000 seems extremely remote.

When you consider that the testimony will be $630,000 on the part of the Railroad, $190,000 on the part of the State, a split of $250,000 to $275,000 would not be an unreasonable verdict. There is a distinct possibility that even with the elimination of the $100,000 damage item, the Railroad could still come up with a verdict in the general vicinity of the one they received.

From past experience of my own, and from discussing complex damage cases with other attorneys in the Trial Section, it is my experience and theirs too that these are the type of cases that are extremely difficult to analyse and very difficult to foretell what the verdict

might be on a new trial. Regardless of the effort that is put into the preparation and trial of the case, when you are dealing with damages to a railroad terminal that is worth millions of dollars, the jury would probably be considering that they were not giving an excess verdict, in fact, were very conservative if they were to come in at $250,000 to $275,000.

Assuming that we secured a verdict of $250,000 which, in my opinion, would be the lowest possible verdict we could probably get, the cost would be $331,885. The proposed settlement is $38,000 more than that which is an 11.5 per cent increase over that probable verdict.

If we were to secure a verdict of $275,000, the total cost to the State would be $363,573, which would be a 3.5 per cent increase.

At first blush, it would appear that we are settling the case at an amount approximately the same as the present verdict. However, before passing that subject, it must be pointed out that we owe almost $100,000 in interest and another $35,000 in costs on that verdict which raised the total that the State is now legally obligated to pay to $520,335. If by some chance we were to lose on the appeal, the cost to the State would be $561,695 plus the attorney fees on appeal which would probably be another $10,000 to $15,000, raising the total cost to the State to $575,000. See attachment #1.

While we feel there is a possibility that we would prevail in an appeal, nothing is certain and I think the risk of the railroad prevailing on an appeal must be considered in this settlement.

After much thought and analysis of this file, it is my opinion that a settlement of $350,000 plus the deeding of the four lots to the Railroad is for the best interest of the State. See attachment #2.

The State will pay, in addition to that, $25,000 on the cost bill, which is a nonparticipating item but would request federal participation in the payment of $350,000 plus the value of the lots ($20,000) to be deeded to the Railroad as a part of the settlement. These lots would be subject to the same use restrictions as the easement taken.

In order to settle at this figure, it is imperative that we have a decision as quickly as possible from the Federal Highway Administration and, therefore, your prompt attention to this matter would be appreciated.

JLS:JBB:ha
Attachments
cc F. B. Klaboe
R. L. Schroeder
L. W. Rulien
W. H. Haskin

DEPARTMENT OF JUSTICE

Memorandum

TO: Walt Barrie

DATE: January 8, 1975

FROM: Jack L. Solis

SUBJECT: State v. Oregon-Washington Railroad & Navigation Company, Circuit Court, Multnomah County, Case No. 379083 (L-6682 R-36087)

This file was tried by Les and a verdict was received in the amount of $386,000 over our high testimony of $190,000.

As you will recall from Les's trial report, he felt that there were several very substantial errors in the case in the admission of testimony relating to damages to the yard in general, the cost of the liability insurance policy that was capitalized, and also the cost of site preparation for a new car loading building.

Les has requested that the case be appealed and the transcript, I understand, is now being prepared for a review and the notice of appeal has been filed.

I do a great deal of work with Jim Bergman, the attorney for Union Pacific Railroad, and in the course of a conversation with him the subject came up of a possible settlement of the case in lieu of a retrial and as a result of this, the railroad has come up with an offer of settlement on the case and I am communicating this to you with a copy to Les and a copy to Mr. Boyd to generate a discussion on the matter.

The railroad has suggested that a settlement be effective in the amount of $350,000 plus deeding to the railroad of three or four lots the Division owns underneath the bridge, one of which has a building on it which was used by a restaurant in which is presently being used by the Highway Division as a resident engineer's office and which they would need to continue to use for another two or three years.

The following is an analysis of the costs to the State based on assumptions I will explain as I go along. First of all, the railroad has a cost bill in for $33,000 which Les has objected to and there will be a hearing on it before a final determination is made as to how much the cost will be. One item I would like to mention here is that even if we should win on appeal (I believe that our chances are fairly strong) that we would still have to pay the cost bill as I understand it would stand unless we got a verdict under the offer in the ensuing new trial which I believe is very, very remote. (Offer $213,000) Therefore, I don't think that the cost bill for this case should particularly be an element in the settlement as we would get stuck with it even if we won the case on appeal.

The following analysis is based on (1) an assumed verdict on the new trial of $190,000 which is our testimony; (2) an assumed verdict of $250,000; (3) an assumed verdict of $300,000 and (4) the existing verdict as a result of the trial we are appealing. I have set out below as items No. 1, 2, 3 and 4, the amount of interest that would accrue on the assumption of a new trial with a verdict of $190,000, a new trial with a verdict of $250,000, a new trial with a verdict of $300,000 and the interest that would accumulate based on the existing verdict. We had deposited into court $168,000 and, therefore, you will note I have two figures set out; (1) the amount of interest that ran before the deposit was made and (2) the amount of interest that is now running since the deposit has been made, to January 1, 1975.

	Verdict	Interest	
(1)	$190,000	7-13-69 to 4-27-72	$31,825
	22,000	4-28-72 to 1-1-75	3,520
			$35,345
(2)	$250,000	7-13-69 to 4-27-72	$41,875
	82,000	4-28-72 to 1-1-75	15,170
			$57,045
(3)	$300,000	7-13-69 to 4-29-72	$50,250
	132,000	4-28-72 to 1-1-75	24,420
			$74,670
(4)	$386,000	7-13-69 to 4-27-72	$64,655
	218,000	4-28-72 to 1-1-75	34,880
			$99,535

Assuming that we appeal the case the interest that would accumulate on the excess of the verdict over the amount deposited for another two year period until the case is retried is shown in the next setting as items 5, 6, 7 and 8. The amounts I have shown there would be the amounts assuming on the item No. 5 verdict of $190,000, item No. 6 a verdict of $250,000, item No. 7 a verdict of $300,000 and item No. 8 an assumption of a verdict in the same amount.

(5)	$22,000	interest for two years	$ 2,640
(6)	$82,000	interest for two years	$ 9,840
(7)	$132,000	interest for two years	$15,840
(8)	$218,000	interest for two years	$26,160

Thus, we come down to the conclusions that if on a new trial verdicts were received in the three various categories, the total cost to the State would be as set out in items 9, 10, 11 and 12, assuming that the verdict was the same as in the prior case.

(9) Verdict	$190,000
Interest to 1-1-75	35,345
Interest on $22,000 for two years	2,640
Trial Cost - State	15,000
	$242,985
(10) Verdict	$250,000
Interest to 1-1-75	57,045
Interest on $82,000 for two years	9,840
Trial Cost - State	15,000
U.P. Trial Costs	35,000
	$366,885
(11) Verdict	$300,000
Interest to 1-1-75	74,670
Interest on $132,000 for two years	15,840
Trial Cost - State	15,000
U.P. Trial Costs	30,000
	$435,510
(12) Verdict	$386,000
Interest to 1-1-75	99,535
Interest on $218,000 for two years	26,160
Trial Cost - State	15,000
U.P. Trial Costs	35,000
	$561,695

The proposed settlement by Union Pacific of $350,000 plus the lots under the bridge would raise the total figure to the vicinity of $375,000.

As you will note this is not too much over the total cost, if we were to have a new trial and a verdict of $250,000, and considerably under the cost if we were to have a new trial and a verdict of $300,000.

Even if the items of damages that were improperly introduced were eliminated they do have an appraiser that testified at $630,000 and would very likely back him up with another appraiser in the same vicinity and what the odds would be on the split between $630,000 and $190,000 is something that will have to be weighed in evaluating this proposed settlement. Also interest on the costs for two years would add another $3,500 to all figures.

I would suggest that after everybody has had a chance to read this memo that perhaps a meeting could be arranged between the four of us to discuss the pro and cons of the settlement.

JLS:jk
cc: Les Hampton
J. B. Boyd

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
LAW DEPARTMENT

RANDALL B. KESTER
GENERAL SOLICITOR
L. JAMES BEROMANN
ASSISTANT GENERAL SOLICITOR
JOHN F. WEISSER, JR.
GENERAL ATTORNEY
ALLARD J. HEITKEMPER
CHARLES N. ISAAK
ASSISTANT GENERAL ATTORNEYS
ROBERT E. WALKLEY
ATTORNEY

NOTED
JACK L. SOLLIS

628 PITTOCK BLOCK
PORTLAND, OREGON 97205

Mailing Address:
P. O. BOX 4265
PORTLAND, OREGON 97208

503 288-8221

January 2, 1975

7758

Mr. Jack L. Sollis
Assistant Attorney General
Department of Justice
Trial Division
211 State Highway Building
Salem, Oregon 97310

RECEIVED
JAN 6 1975
LEGAL

Re: State v. OWR&NCo. and UPRRCo.
(Your Files L-6682 & R-36087)

Dear Mr. Sollis:

This will acknowledge your letter dated December 19, 1974. Some of the statements in your letter compel a response.

The statement that "[n]either side desires to go through the inevitable re-trial of this condemnation proceeding and the expense involved", is self-serving and intemperate. A re-trial is not "inevitable". It must be assumed that the State believes it has valid issues for appeal, and that it is optimistic that its appeal will be successful. However, the Railroad is equally optimistic that the verdict and the trial court's denial of a new trial will be upheld upon appeal. The allegation that re-trial is "inevitable" is as intemperate as would be an allegation by the Railroad that the State's appeal was frivolous and without probable cause.

In the third paragraph of your letter, it is noted "[i]ncidentally" that "if on retrial, the verdict again entitles you to costs, you will be entitled to recover only the costs of the second trial, not the costs of the first trial". I am not aware that the Court of Appeals or the Supreme Court has interpreted ORS 35.335(2) and ORS 35.346(2) to preclude a successful defendant

from securing "costs of appraisals and fees for experts incurred in preparing and conducting the defense to the action", and to limit a defendant's recovery to only the actual costs incurred in the course of the second trial. As you are aware, the bulk of our costs was incurred prior to trial "in preparing and conducting the defense to the action". Further, your attention is directed to the recent decision in the case of State Highway Commission v. Carmel Estates, Inc., 99 Or Adv Sh 945, in which the Court of Appeals held that interest ran against the judgment for attorney's fees and costs under ORS 35.346(2).

Your attention is further directed to the fact that no attorney's fees were included as part of our costs in this case. In view of the disparity between the verdict and the State's offer, you will appreciate that attorney's fees in this case would have been substantial. The exclusion of attorney's fees was pursuant to Section 1A(b) of the agreement between the State and Railroad dated June 13, 1969, which provided in part:

> "* * * In the event the amount of compensation to be paid the Railroad cannot be agreed upon between the parties, said amount shall be as determined by a condemnation proceeding to be filed by Second Party in the Circuit Court of the State of Oregon for the County of Multnomah. No attorney's fee shall be recovered in such action."

The quoted provision does not preclude recovery of attorney's fees in connection with any appeal from that action, and attorney's fees on appeal are allowable as a separate matter pursuant to ORS 35.355.

Even assuming the State is successful in securing a re-trial, you must recognize that the State is not assured the verdict would be less than the verdict in the first trial. Your attention is respectfully directed to Southern Pacific's recent successful appeal from a verdict of approximately $202,000 in Koch v. Southern Pacific Co., 97 Or Adv Sh 312, 513 P2d 770, involving a crossing accident. On re-trial, the jury entered a verdict in excess of $1 million. I submit

there are no inevitabilities or guarantees with respect to the results of appeals or re-trials. In this case, one of the issues at the trial was the extent of damage to the Railroad's remaining property on account of objects falling off the bridge approaches. The State tried to convince the jury that General Motors' designed retaining walls on the bridge virtually assured that nothing could fall from the bridge onto our property. In case it has not otherwise come to your attention, subsequent to trial, and on October 28, 1974, a lamppost fell from the bridge approach onto our property; and on December 28, 1974, an unfortunate motorist was killed when knocked off the bridge approach while inspecting an accident. Enclosed for your ready reference is an excerpt from a newspaper article with respect to the accident on December 28, 1974.

Your letter stated that you considered your proposal to be most generous, in that it was $100,000 higher than the settlement we proposed at the time of trial. Please consider conversely that the State's total liability as of January 13, 1975 will be in excess of $526,000, with interest at the rate of approximately $70 per day. Under the circumstances, the settlement we have proposed is more than $125,000 less than the State's present outstanding liability; and considering all circumstances, we believe our offer to be most generous to the State.

Your letter closes by proposing to split our remaining difference. The amount of our "remaining difference" is not clear from your letter. The remaining difference between $35,049 and $17,524 is $8,762, and would suggest a settlement figure of $26,286. The remaining difference between $30,000 and $17,524 is $6,238, and would suggest a settlement figure of $23,762. In a final effort to dispose of this matter, and in deference to your demand for a lump sum of money that will compromise and settle the case, I will recommend a settlement of the judgment entered nunc pro tunc June 27, 1974 and the judgment entered November 6, 1974 for a total sum of $375,000, plus title to the lots owned by the State under the east approaches to the bridge. Essentially this amounts to compromising and settling the cost bill for $25,000, which approximately "splits the difference" between $23,762 and $26,286.

Please advise if this proposal is now acceptable to the State.

Very truly yours,

RANDALL B. KESTER

By L. James Bergmann

LJB/nr
Enclosure

THE OREGONIAN - Sunday Edition, December 29, 1974

TWO DIE, THIRD MISSING ON ICY, FOGGY BRIDGES

Two men died and a third was reported missing Saturday in three traffic accidents on icy, fog-shrouded bridges, law enforcement agencies reported.

Serge Kapigian, 21, of 6618 N. Altnatic Ave., fell 200 feet to his death when he was struck by a car and thrown from the Fremont Bridge while inspecting a traffic accident, the Portland Police Bureau said.

Patrolman Patrick Nelson said Kapigian's compact automobile had skidded into a guardrail in southbound lanes on the east end of the bridge.

Nelson said police and Kapigian were inspecting the accident when a van operated by John Patrick Pyles, 30, Vancouver, skidded into the victim and knocked him from the bridge.

The van subsequently struck the police car and the victim's vehicle, Nelson said.

Kapigian fell to N. Interstate Ave. and Stanton Street. He was pronounced dead on arrival at Emanuel Hospital.

Pyles was cited for failure to maintain control of his vehicle, Nelson said. * * *

FILE: ITEM 7-4

#7310

Salem, OR 97310

December 27, 1974

Leslie B. Hampton
Assistant Chief Trial Counsel
Department of Justice
106 State Office Building
Salem, OR 97310

Carl Hobson
Assistant Personnel Director

Request of December 24, 1974
For Personnel Involved With the Fremont Bridge

Listed below is the information you requested in your letter of December 24, 1974.

NAME	POSITION IN 1969	CHANGES
Albert E. (Al) Johnson	HE 8, Materials Engineer, Portland	July 1, 1970, Promoted to HE 9, Assistant State Highway Engineer, Salem January 15, 1973, Promoted to Deputy State Highway Engineer, Salem (Current Position)
Theodore C. Roake	HE 7, Assistant Bridge Engineer, Salem	Retired April 30, 1970 Last known address: 16504 S.W. Lake Forrest Blvd., Lake Forrest, OR 97034
Leonard Wallace, Jr.	HE 7, Bridge Design Engineer, Salem	Current Position
Cecil A. Gardner	HE 5, Bridge Office Supervisor, Salem	Retired January 7, 1972 Last known address: 2010 Court Street, N.E. Salem, OR 97301
Adrian D. Olson	HE 6 Preliminary Design Engineer, Salem	September 1, 1970, Promoted to HE 7, Preliminary Design Engineer (Current Position)

NAME	POSITION IN 1969	CHANGES
Oscar A. White	Retired	Retired June 30, 1979 Last known address: 660 W. Clackamas Circle, Woodburn, OR 97071
H. Dean Mandrell	Materials Testing Engineer 2, Engineering Supervisor, Salem	May 31, 1974, Resigned Last known address: 4055 Alana Avenue S.E. Salem, OR 97302
James E. Chidsey	HE 4, Senior Specifications Engineer, Salem	July 14, 1969, Promoted to HE 5, Structural Quality Control Engineer February 1, 1973, Promoted to HE 6, Utilities Engineer (Current Position)
Ed J. Rief	HE 4, District Inspection Engineer, Portland	Current Position
Daniel J. Barbee	HE 8, Design Engineer	August 31, 1970, Retirement Last known address: 1090 Donna Avenue N.E. Salem, OR 97303
Duane O. Christiansen	HE 6, Supervisor, Bridge Design Engineer	Current Position
Clarence G. Swenson	HE 6, Specifications Engineer	Current Position
Lawrence E. George	HE 8, Traffic Engineer	Current Position

If you need any further information or assistance, please let us know.

CH:wc

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

December 24, 1974

Mr. Gene Huntley, Director
Personnel Section
511 State Highway Building
Salem, Oregon 97310

Re: Anderson - Hanna v. State of Oregon
Case No. 86553 (L 7122)

Dear Gene

I forward herewith a list of OSHD personnel who were involved in one way or another with the planning and construction of the Fremont Bridge.

As you probably know, we have pending litigation with both the east approach and west approach contractors. We are currently in the "discovery stage", with the usual exchange of records and information. The time period involved is from July, 1969 to the present. We need the following information: Job position as of July, 1969; significant changes in the job and title of the individuals and the date thereof; and finally, the current position of the individuals or the date of their retirement from the Department.

Please have one of your people supply me the information at the earliest possible date.

Sincerely

Les Hampton

Leslie B. Hampton
Assistant Chief Trial Counsel

ph

Enclosure

HIGHWAY DEPT.
DEC 26 1974
PERSONNEL

Re: Anderson-Hannan v. State of Oregon (West Fremont Interchange)

LISTING OF OSHD PERSONNEL

Al Johnson -

✔ Theo. C. Roake - 564 Rose St N.E, Salem 97301

✔ Alfred Rear -

L. L. Wallace -

✔ C. A. "Slim" Gardner - 2010 Court NE Salem 97301

Adrian Olson -

✔ Oscar White - 660 W. Clackamas Circle Woodburn 97071

✔ Dean Mandrell -

J. E. Chidsey -

Ed Rief -

✔ D. J. Barbee - 1090 Donna Ave NE, Salem 97303

Duane O. Christensen -

Clarence "Swede" Swenson -

L. E. George -

RECEIVED
DEC 5 1974
ATTORNEY GENERAL
SALEM, OREGON

#7310

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION
SALEM, OREGON 97310

December 19, 1974

Mr. J. D. Gammage
Engineer of Materials,
Research & Training
State Dept. of Transportation
Gainsville, FL 32601

Dear Jim:

I was fortunate in being permitted to attend the Zinc-Rich Coatings Conference in Chicago on December 4 and 5 and to hear and meet Mr. Dick Ramsey there. I thought the entire program was worthwhile and I particularly appreciated the information presented by Dick about your experiences with zinc-rich coatings in Florida

Our interest in inorganic-zinc coatings is particularly strong at this time because of two pending law suits totaling something like $5 million. The largest suit involves the Fremont Bridge in Portland. The inorganic zinc coating, first Rust Ban 191 and later post-cured Rust Ban 193, was applied in Vancouver, B.C. The problem developed when rust was discovered on many RB 193-coated members early in 1971 in Portland, only a month or two after being coated. The fact that some members arriving in Portland continued to rust at an early age, some members rusted and some did not, and the rusting stopped when more stringent inspection procedures were instigated in Vancouver, leads us to believe that the cause of the problem was faulty application. On the other hand, the fabricator blames the rust on the requirements of the specification that "restricted the allowable coatings to only one product - Rust Ban 191," and to the "aggressive environment" of Portland.

In view of your much more extensive experience with zinc-rich coatings I wonder if it would be possible for Dick Ramsey to review the specifications for the Fremont Bridge to determine if, in his opinion, the specifications were such that in 1969 - 1971 only one coating could meet them. Also, are the specifications so vague, contradictory and confusing as to preclude obtaining a satisfactory coating application.

RECEIVED
DEC 23 1974
Office of
Assistant State Highway Engineer

During the course of application of the RB 191 in the early fall of 1970, and before there was evidence of a rusting problem, the fabricator requested a change from RB 191 to RB 193. The principal reason for the requested change was that he was having difficulty getting steel clean and with the proper blast profile for RB 191, whereas with RB 193 he could largely forget about profile and concentrate on cleanliness. Because of a reported softer surface on naturally cured RB 193 as compared with naturally cured RB 191, the Highway Division required that all RB 193 be force cured with RustBan Accelerator 6851. The fabricator had wanted to force cure only if the weather conditions were poor.

In discussing our problem with Dick Ramsey he commented that the Florida Highway Department had tested RB 193 and had rejected it for use on your structures. May I ask what the conditions of test were and in what manner the coating failed? If you have a report on the test we would very much like a copy. If there is a cost please let me know.

Dick has been very helpful in suggesting tactics which might be of value in preparing our legal defense. For this, and any other assistance you might provide, we are extremely grateful.

Sincerely,

JOHN C. JENKINS
Engineer of Materials

JCJ:gs

P.S.

Our attorney, Les Hampton, says that Dick Ramsey told him about test panels which you have prepared which have been exposed for periods of up to 15 years. If you have a report on these might we have a copy? If you don't have a report, could you give us some information on the systems tested, the kind of test, and the results? Many thanks, Jim.

bc H.S. Coulter
L.B Hampton
E.F. Hardt
R.H. Bothman
J. Howard
R. Shotwell

7310

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

December 1., 1974

Mr. [illegible] Bergmann
Attorney at Law
P. O. Box 4265
Portland, Oregon 97208

Re: State of Oregon v. O.W.R.&N. Company
(L-6082 R-36067)

Dear Mr. Bergmann:

I have discussed your letter of December 4, 74, upon the above mentioned case with Mr. Boyd and Mr. Hampton.

Your letter misses the point. The question is not your cost bill, the hearing thereon, or who should pay your costs or portion thereof. The question is can we arrive at a lump sum of money that will compromise and settle this case. Neither side desires to go through the inevitable re-trial of this condemnation proceeding and the expense involved.

Our proposal is $100,000.00 higher than the settlement you proposed at trial time. From our point of view, we are also adding the Highway Division owned lots previously discussed. When your proposal at trial was made, you had already incurred the bulk of your ultimate trial costs. Incidentally, if on retrial, the verdict again entitles you to costs, you will be entitled to recover only the costs of the second trial, not the costs of the first trial.

In conclusion, we feel that our most recent proposal, including adding on a sum representing one-half of your costs was more than generous. After agreeing to "split our remaining difference" we are not prone to go further. Please review this matter with your clients. It is our sincere hope that further reflection on their part will resolve in the compromise and settlement of this matter on the basis of our proposal, subject, of course, to Commission approval.

Sincerely yours

NOTED
R. L. SCHROEDER

RECEIVED
DEC 24 1974
Office of
Assistant State Highway Engineer

cc: Walt Barrie
Les Hampton
J. B. Boyd
cc Schroeder
Chaney

Jack L. Sollis
Assistant Attorney General

7310

December 19, 1974

Mr. James C. McCarthy, Special Agent
Bureau of Customs
U.S. Department of the Treasury
511 N. W. Broadway
Portland, OR 97209

Dear Mr. McCarthy:

Fremont Bridge, East and West Approaches
Contracts 7214 and 7310
Custom Duty on Shop Drawings

I have just recently reviewed this file again after receiving a letter from Howard, Needles, Tammen and Bergendoff. It would appear that perhaps the relationships of the parties have not been clearly established in our prior correspondence.

The consultant for the Highway Division (Howard, Needles, Tammen & Bergendoff) had the responsibility of not only designing the East and West Fremont Interchanges, but also of checking the shop drawings supplied by the general contractor or his subcontractors to ensure they were correct. The only relationship Howard, Needles, Tammen and Bergendoff had to the shop drawings was their responsibility for checking and distributing those drawings prepared by others. The drawings in question were prepared by the steel fabricator in Japan or Canada at the direction of the general contractor. They were submitted by the steel fabricators directly to Howard, Needles, Tammen and Bergendoff. After review and checking by Howard, Needles, Tammen and Bergendoff, the drawings were distributed to the State, the contractor, and the steel fabricators for their use during fabrication of the steel.

It would seem that since they did not prepare the drawings, and were in no way responsible for the preparation of the drawings, they should not be responsible for

the custom duties. Rather, the general contractor or the subcontractor, or possibly the steel fabricators, would be the ones who should be paying the custom duties, as they were required to supply these drawings as a part of the general contract for the bridge approaches.

At no time did Howard, Needles, Tammen and Bergendoff have title to the drawings nor were they involved in the preparation, nor were they required to prepare the drawings. They were merely to check them for accuracy and distribute them for use by the general contractor and the State.

I would suggest that perhaps you should contact the contractors on the job relative to the collection of this duty. The contractor for the West Fremont Interchange was Andersen-Hannan, P. O. Box 13367, 3427 N. W. Halsey Street, Portland, Oregon, 97213; the contractor for the East Fremont Interchange was Drake-Willamette, c/o R. E. Grant, Vice President-Construction, Donald M. Drake Company, 1740 N. W. Flanders Street, Portland, Oregon, 97209.

Canron, Ltd., of Vancouver, B.C., one of the foreign fabricators of steel for the Fremont Interchanges, was aware in November of 1970 of the potential of custom duty assessment. We have a letter from Canron on that date requesting drawing cost information for the purpose of custom duty assessment.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

Enc.

cc/enc. Mr. William L. Duncan
District Director
Bureau of Customs
Department of the Treasury
120 S. Central, Suite 403
St. Louis, Missouri 63105

Howard, Needles, Tammen
and Bergendoff
1805 Grand Avenue
Kansas City, Missouri 64108

bc F. B. Klaboe
H. S. Coulter (enc.)
Walter J. Hart "
Jack Sollis "
R. N. Bothman "

WJH:dh ja

Case Number	
	75-4501-10046
Port Name and Code	4501
	Kansas City, Mo.
Investigation File No.	
	KC08GM493014

NOTICE OF PENALTY OR LIQUIDATED DAMAGES INCURRED AND DEMAND FOR PAYMENT

TO:

Howard, Needles, Tammen & Bergendoff
1805 Grand Avenue
Kansas City, Missouri

DEMAND IS HEREBY MADE FOR PAYMENT OF $ 9,413.00, representing ☐ Penalties or ☐ Liquidated Damages assessed against you for violation of law or regulation, or breach of bond, as set forth below:

In 1969, 1970 and 1971 you received 5131 shop drawings by mail from Canada and Japan without paying the duty which was legally due. In addition to this penalty a demand is also made for the accrued duties of $404.15.

(continue facts on reverse)

LAW OR REGULATION VIOLATED	BOND BREACHED
19 United States Code, Section 1592	

DESCRIPTION OF BOND (if any)	Form Number	Amount $	Date

Name and Address of Principal in Bond

Name and Address of Surety on Bond	Surety Identification No.

If you feel there are extenuating circumstances, you have the right to object to the above action. Your petition should explain why you should not be penalized for the cited violation. Write the petition as a letter or in legal form; submit in (duplicate) (triplicate), addressed to the Commissioner of Customs, and forward to the District Director of Customs at 120 S. Central, Suite 408, St. Louis, Missouri 63105

Unless the amount herein demanded is paid or a petition for relief is filed with the District Director of Customs within 60 days from the date hereof, further action will be taken in connection with your bond or the matter will be referred to the United States Attorney.

Signature	Title	Date
By: William L. Dingman	District Director	11/8/74

DEPARTMENT OF THE TREASURY
BUREAU OF CUSTOMS
23.11, 23.25, C.M.

Customs Form 5955-A (3-22-73)

i. - 7310

CONT 7214, 7310 & 11

October 31, 1974

Mr. Glen Green
Division Engineer
Federal Highway Administration

Dear Mr. Green:

Contract Litigation
East and West Fremont Interchanges
Contracts 7214, 7310, and 7311

As you are aware, the contractors for the East and West Fremont Interchanges have filed actions seeking approximately $2,290,000 and $1,295,000 respectively. The early legal proceedings will involve the finalizing of the pleadings with examination of records and the taking of depositions. The State's case will be presented by Mr. Leahy and Mr. Hampton of the State Attorney General's office.

It is our opinion, and that of our legal staff, that it will be necessary to obtain the services of independent experts to advise us on the facts and to testify in the probable litigation. We have tentatively selected two such experts—Mr. Kenneth Tator and Dr. Meredith.

Mr. Tator is an experienced consulting engineer. A copy of his qualifications is attached. His name, along with two others, was furnished by the National Zinc Institute. The qualifications of the three individuals suggested have been reviewed by Mr. Hardt, Region 1 Engineer; Mr. Jenkins, Materials Engineer; and Dr. Meredith.

Generally we had proposed for Mr. Tator to review and report on the adequacy of our paint specifications on data relative to the effect of the Portland environment on the inorganic zinc primer and on the

probability that faulty application, rather than the environment, was the primary cause of the failure of the inorganic zinc primer. We would also anticipate requesting Mr. Tator to investigate and report on the vinyl paint bubbling problem.

Arrangements have been made for Mr. Tator to come to Portland next week. He will arrive the evening of ~~October~~ NOV. 5 and be here the sixth and a portion of the seventh. The purpose of his visit is for us to affirm his apparent qualifications. We will present the problems to him and determine whether or not he is willing to assist us with them. We will also ascertain the approximate fee for the assignment.

Dr. Robert Meredith worked last summer for Mr. Jenkins in our Materials Lab on an unrelated problem. At off moments he devoted some time to studying the probable effect of the Portland environment on inorganic zinc primer. We believe it would be advantageous to update our testing of panels and probably conduct additional tests subjecting test panels to various solutions duplicating the environmental problems.

In the event of litigation, which is probable, a non-Highway employee expert on corosion, would probably be more persuasive to a court or jury. Dr. Meredith seems well-qualified to do the testing work in cooperation with Mr. Jenkins. A copy of Dr. Meredith's qualification is attached. His fee for consulting work is $200 per day or $25 per hour. We have utilized some of his time to discuss the possible testing and to assist us in evaluating the merits of Mr. Tator and the other experts considered.

Federal participation in securing the two outside consultants and other related costs in preparation of the State's case in this pending litigation is requested.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

Enclosures
WJH:dh

cc L. Hampton
E. L. Hardt
J. Jenkins
W. J. Hart

F. B. Klaboe
E. S. Hunter
R. L. Schroeder
H. S. Coulter

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION
103 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-4620

October 30, 1974

Mr. A. E. Johnson
Deputy Highway Engineer
Highway Building
Salem, OR 97310

Re: Drake-Willamette vs. State
Anderson-Hanna vs. State
L-7122 and L-7121
Fremont Bridge

Dear Mr. Johnson

As you know the contractors for the east and west approaches to the Fremont Bridge have filed actions seeking approximately $2,290,00 and $1,295,00 respectively. The early proceedings will involve the finalizing of the pleadings, the examination of records and the taking of depositions. It is also necessary to start outlining and preparing the presentation of our cases. John Leahy, Chief Trial Counsel, and I will be handling them.

It will be necessary to obtain the services of added independent experts to advise us on the facts and to testify in the probable litigation to come. Mr. Leahy and I have tentatively selected two such experts, Mr. Kenneth Tator and Robert Meredith.

Mr. Tator is an experienced consulting engineer. I forward herewith a copy of his qualifications. His name with two others was furnished by the National Zinc Institute. We reviewed the qualifications of the three by obtaining some of their respective work and discussing the same with Ed Hardt, John Jenkins and Professor Meredith. We also briefly discussed the experts with you.

Generally we visualize a review and a report on the adequacy of our paint specifications, our data relative to the effect of the Portland environment on the inorganic zinc primer and the

cc: John Jenkins
Hardt Hardt
11-1-74

NOTED
A. E. JOHNSON

probabilities that faulty application rather than the environment was the primary cause of the paint failures. We also envision an investigation and report of the "vinyl paint bubbling problem".

Mr. Leahy and I arranged for Mr. Tator to come to Portland next week. He will arrive the evening of the 5th and be here the 6th and a portion of the 7th of November. He also has an assignment in Phoenix, Arizona which will save some of his transportation costs. The purpose of his visit is for us to affirm his apparant qualification and the favorable impression that he made by telephone. We will present the problems to him and determine whether or not he is willing to assist us with them. We will also obtain the approximate fee involved for the assignment.

Dr. Robert Meredith last summer worked on a unrelated problem for John Jenkins in our lab. At off moments he devoted some time to studying the probable effect of the Portland environment on inorganic zinc primer. In discussions with Mr. Hardt, you and others we decided it would be to our advantage to update our testing of panels and probably conduct additional tests subjecting test panels to various solutions duplicating the environmental problems.

In the event of litigation, which is probable, a non-highway employee expert on corrosion would probably be more persuasive to a court or jury. Dr. Meredith seems well-qualified to do the testing with the cooperation of Mr. Jenkins. I enclose a copy of his qualifications. His fee for consulting work is $200 per day or $25 per hour. Mr. Leahy and I had heretofore utilized some of his time to discuss the possible tests and to assist us in evaluating the merits of Mr. Tator and the other possible experts.

I would appreciate your informing the appropriate Federal Highway Administration personnel of our intent to utilize these experts. Please also have your staff do the necessary processing to obtain federal participation in this phase of our trial preparation.

Sincerely

Les Hampton

Leslie B. Hampton
Assistant Chief Trial Counsel

lj
Enclosures
cc: Mr. Ed Hardt
Mr. John Jenkins

KENNETH TATOR ASSOCIATES
2020 MONTOUR ST. • CORAOPOLIS, PA. 15108 • (412) 262-2003

PROTECTIVE COATINGS (PAINT) CONSULTANTS: Testing • Instruments • Inspection • Corrosion Engineering

KENNETH B. TATOR

Kenneth B. Tator is the owner of KENNETH TATOR ASSOCIATES, a consultant engineering firm specializing in industrial protective coatings. The Company's services include premature paint failure analysis and corrective recommendations; laboratory and field paint testing; specification writing and review; on-the-job coating application inspection, and the sale of a complete line of coating inspection instrumentation.

EDUCATION

Columbia University -- Graduate School of Business
Master of Business Administration

Lafayette College --
Bachelor of Science in Chemical Engineering

ASSOCIATION MEMBERSHIPS

American National Standards Institute
National Association of Corrosion Engineers
American Society of Testing Materials
Society for Paint Technology
Utilities Nuclear Coating Work Committee
Steel Structures Painting Council

EXPERT TECHNICAL WITNESS

Tator has presented expert witness testimony on coating failures in the following states: Pennsylvania, Ohio, South Carolina, Florida, Delaware, Rhode Island, and West Virginia.

Tator has been selected to write two important chapters; "Surface Preparation of Metal Surfaces", and "Zinc Rich Coatings"; in the upcoming McGraw-Hill Paint Specification Handbook.

PUBLICATIONS

"Coating Inspection Instruments"; PLANT ENGINEERING, September 19 and October 3, 1974.

"Coating Developments, Problems, Trends in the Chemical Industry"; MATERIALS PERFORMANCE, September 1974.

"Use Good Sense With Paint Specs"; CANADIAN CHEMICAL PROCESSING, March 1974.

"Engineers Guide to Protective Coatings"; CHEMICAL ENGINEERING Deskbook Issue, December 4, 1972.

"Engineered Painting Pays Off"; CHEMICAL ENGINEERING, December 27, 1971.

"Industrial Maintenance Painting--Proper Planning and Careful Selection of Alternatives Can Save Money"; AMERICAN SOCIETY OF MECHANICAL ENGINEERS, October 1971.

"Industrial Painting--Doing It Properly Can Save Money"; CANADIAN CHEMICAL PROCESSING, March 1971.

"On-The-Job Coating Inspection Helps Insure Quality Application"; MATERIALS PROTECTION AND PERFORMANCE, Vol. 10, No. 2, February 1971.

"Protective Coatings"; CHEMICAL ENGINEERING Deskbook Issue, October 12, 1970.

"Industrial Paint Testing"; NEW YORK CORROSION COURSE, October 1969.

"A Consultant Looks at Zinc Rich Paints"; ZINC INSTITUTE, INCORPORATED, November 1969.

"Corrosion Resistant Zinc Paints"; ZINC INSTITUTE, INCORPORATED, May 1969.

SEMINARS

Tator has presented technical papers or educational lectures at various meetings including: National Association of Corrosion Engineers; Liberty Bell Corrosion Course; New York Corrosion Course; American Zinc Institute; Canadian Zinc Institute; American Society of Mechanical Engineers; National Plant Engineering and Maintenance Conference; Kanawha Valley Coatings Society; University of Missouri-Rolla; University of Wisconsin-Madison; Center for Professional Advancement; Engineering Foundation Conference; Paint Research Institute of the Federation of Societies of Paint; and various corporate seminars.

PUBLICATIONS

"Coating Inspection Instruments"; PLANT ENGINEERING, September 19 and October 3, 1974.

"Coating Developments, Problems, Trends in the Chemical Industry"; MATERIALS PERFORMANCE, September 1974.

"Use Good Sense With Paint Specs"; CANADIAN CHEMICAL PROCESSING, March 1974.

"Engineers Guide to Protective Coatings"; CHEMICAL ENGINEERING Deskbook Issue, December 4, 1972.

"Engineered Painting Pays Off"; CHEMICAL ENGINEERING, December 27, 1971.

"Industrial Maintenance Painting--Proper Planning and Careful Selection of Alternatives Can Save Money"; AMERICAN SOCIETY OF MECHANICAL ENGINEERS, October 1971.

"Industrial Painting--Doing It Properly Can Save Money"; CANADIAN CHEMICAL PROCESSING, March 1971.

"On-The-Job Coating Inspection Helps Insure Quality Application"; MATERIALS PROTECTION AND PERFORMANCE, Vol. 10, No. 2, February 1971.

"Protective Coatings"; CHEMICAL ENGINEERING Deskbook Issue, October 12, 1970.

"Industrial Paint Testing"; NEW YORK CORROSION COURSE, October 1969.

"A Consultant Looks at Zinc Rich Paints"; ZINC INSTITUTE, INCORPORATED, November 1969.

"Corrosion Resistant Zinc Paints"; ZINC INSTITUTE, INCORPORATED, May 1969.

SEMINARS

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KENNETH TATOR ASSOCIATES
2020 MONTOUR ST. • CORAOPOLIS, PA. 15108 • (412) 262-2663

PROTECTIVE COATINGS (PAINT) CONSULTANTS: Testing • Instruments • Inspection • Corrosion Engineering

STANDARD FEE STRUCTURE: KENNETH B. TATOR

CONSULTATION CHARGES:

First Day: $350.00, each successive day $250.00

Minimum Consultation Charge (part of a day): $100.00

Technical Report: $40.00/hour with a two hour minimum.
(The average technical report is four pages in length and requires two hours preparation time.)

LITIGATION:

Expert Witness Testimony: $350.00 per day
(courtroom or deposition)
Courtroom Availability: $275.00 per day
(no testimony presented)
Retainer Fee: As pending litigation may restrict our availability for other consulting jobs, we charge a retainer of $100.00/month or any part of a month we are involved in litigation proceedings. This fee includes provisions for telephone conferences, etc.

All charges are plus expenses.

RECEIVED
OCT 20 1974
ATTORNEY GENERAL
SALEM, OREGON

OREGON STATE UNIVERSITY

School of Engineering

MEREDITH, Robert Eugene
Associate Professor

BIRTH DATE
February 25, 1928

DEGREES

B.S., Chemistry, University of Calif. at Berkeley, 1956
Ph.D., Chemical Engineering, University of Calif. at Berkeley, 1959

ACADEMIC POSITIONS

Research Associate, University of California, 1956-57
Assistant Professor, Oregon State University, 1959-63
Associate Professor, Oregon State University, 1963-

NON-ACADEMIC POSITIONS

Union Oil Co., Rodeo, Calif., Summer 1956
California Research Corp., Richmond, Calif., Summer 1957
Consultant, U.S. Bureau of Mines, 1959-66
Consultant, Pacific Power and Light Co., 1962
Consultant, U.S. Naval Ordnance Lab., Corona, Calif., 1963
Consultant, NASA, Jet Propulsion Lab., 1963, 1970-71, 1973
Consultant, Wah Chang Corp., 1964
Consultant, Flomatcher Corp., 1965-67
Consultant, Foote Mineral Co., 1967-70
Consultant, Cornell, Howell, Hayes & Merryfield, 1968
Consultant, Evans Products Co., 1966, 1968-69, 1974
Consultant, Memorex Corp., 1971
Consultant, Weyerhaeuser Co., 1971
Consultant, Dow Chemical Co., 1973

FIELDS OF SPECIALIZATION

Electrochemistry and Electrochemical Engineering including the fields of energy conversion, corrosion, electrical conductivities, current distribution and gravitational effects on electrochemical processes. Properties and physics of porous and dispersed phases. Chemical Engineering Plant Design.

PROFESSIONAL ACTIVITIES

Registration

State of Oregon, No. 4858

Professional Societies

Electrochemical Society
American Institute of Chemical Engineers

MEREDITH, Robert Eugene

Professional Recognition

Past President, Sigma Xi, OSU Chapter, 1966-67
Member, Board of Theoretical Division, Electrochemical Soc., 1959-74
Member, Honors and Awards Subcommittee, Electrochemical Soc., 1959-60
Chairman, Pac. Northwest Section, Electrochemical Soc., 1966
Chairman, Pysical Electrochemistry Division, Electrochemical Soc., 1970-72
Member, Board of Directors, Electrochemical Soc., 1970-72
Chairman, Chemical Engineers of Oregon, 1968-69
Member, Undergraduate Curriculum Committee, A.I.Ch.E., 1959
Senior Post-Doctoral Resident Research Associate, National Academy of Sciences, 1966-67
Sigma Xi
Tau Beta Pi

PUBLICATIONS

Books

"Conduction in Heterogeneous Systems," Vol. II, Advances in Electrochemical Engineering, Edited by P. Delahay and C. W. Tobias, Interscience, New York, 1962
Contributor to: "Encyclopedia of Electrochemistry," edited by Clifford Hampel, Reinhold, New York, 1964.

Technical Journals

"Resistance to Potential Flow Through a Cubical Array of Spheres," J. of Applied Physics 31, 1270, (1960) and 32, 132, (1961).
"Conductivities in Emulsions," J. of the electrochemical Soc. 108, 286-290, 1961.
"The Role of Current Distribution in Cathodic Protection," Materials Protection, 2, nr. 2, pp. 39-42, 1963.
"A High-Temperature Solid-State Battery," Electrochemical Technology 5, 32-34, 1967.

Conference Proceedings

"The Oxygen Electrode in Molten Carbonates," Proceedings of the Interagency Advanced Power Group, October 1961.
"Theoretical Evaluation of Hot Spot Temperature of Silver-Zinc Batteries," Proceedings of the Intersociety Energy Conversion Engineering Conference, 1968 Record, pp. 32-37.

Reports & Others

"Studies on the Conductivities of Dispersions, "Univ. of Calif. Radiation Lab. Report (UCRL 8667), 1959.
"Electrowinning Copper and Zinc from Oregon Mines," Oregon Dept. of Planning and Development No. 46, 1962.
"Electrodeposition Studies of Molybdenum, Tungsten, and Vanadium in Organic Solvents," U.S. Bureau of Mines Report of Investigations, R.I. 6303, 1963.

Reports & Others (cont)

"Gravitational Effects on Electrochemical Batteries,"
NASA Technical Report 32-1570 67 pages, 1972

CONSULTING AND EMPLOYMENT EXPLANATION

Union Oil Co.
Solved some asphalt and lube oil production problems.

California Research Corp.
Performed capacity studies on the limiting factors in a crude oil distillation column.

U.S. Bureau of Mines
Devised techniques for electro-plating some uncommon metals from organic solvents.

Pacific Power & Light Co.
Performed feasibility studies on the use of battery powered cars and advised the Research Director with regard to industrial support on the project.

U.S. Naval Ordnance Lab.
Developed a battery for use in high temperature applications.

NASA, Jet Propulsion Lab.
Advised on the expected behavior of battery performance in low gravitational fields.

Wah Chang Corp.
Aided in corrosion studies.

Flomatcher Corp.
Studied electrolytes for high current density a.c. use.

Foote Mineral Co.
Helped evaluate diaphragm performance in mangancse cells.

Cornell, Howell, Hayes and Merryfield
Aided in design of a chemical recovery system to stop water pollution for a client. Studied properties of sodium thiocyanate.

Evans Products Co.
Evaluated battery separators. Help develop a new plastic separator.

Memorex Corp.
Conducted an investigation, as an impartial party with attorneys, on the misuse of company secrets by former employees of the company.

Weyerhaeuser Co.
Devised a calibration technique so that reduced sulfur compounds could be monitored in stack gases with conventional methods.

Dow Chemical Co.
Conducted a "state of the art" investigation on the current status of fuel cells. Studied hydrogen usage in energy conservation.

7310

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

7314
7310
7311
7312

October 29, 1974

Mr. Kenneth Tater
Attorney at Law
2020 Montour Street
Coraopolis, Pa. 15108

Re: Freemont Bridge

Dear Mr. Tater

This will confirm previous telephone conversations with your office.

We expect you to arrive at Portland International Airport in the evening of November 3, 1974. You have a reservation at the Cosmopolitan Airtel at 6221 N.E. 82nd in Portland (telephone: 255-6511). The hotel is right near the airport, they have a shuttle service from the hotel to the airport. It will be necessary for you to call the Airtel when you arrive at the airport and it will take them about 10 minutes to send a car to pick you up.

The following morning Mr. Charles Lobough an assistant engineer with the Oregon State Highway Division will pick you up at your hotel at approximately 8:45 if that is convenient for you and drive you to Mr. Ed Hardt's office where Mr. Hampton and I will will meet with you.

Mr. Hampton and I are looking forward to meeting you and hope you have a pleasant trip to Oregon.

Sincerely

John Leahy
Chief Trial Counsel

nlm

cc: Ed Hardt
Al Johnson
Chuck Lobough

RECEIVED
HWY ENGR
OCT 31 74
REFER TO
FOR
Dis | Inves | CO | DIR | Sten | Act | Fis

October 11, 1974

Mr. Rockne Gill
Attorney at Law
12th Floor Standard Plaza
Portland, OR 97204

Dear Mr. Gill:

On September 27, Mr. Don Shaffer telephoned you and discussed your request for copies of Special Provisions and Supplemental Standard Specifications for the Stadium Freeway Units A and B, East Fremont Interchange. He has telephoned you a number of times since, but has not been able to reach you.

If you cannot obtain the material that you need from Klaas Bros., let us know, and we will attempt to make the necessary copies.

Very truly yours,

L. W. Rulien
Project Management Engineer

GNH:dg

bc A. E. Johnson
Don Shaffer

SOUTHER, SPAULDING, KINSEY, WILLIAMSON & SCHWABE
ATTORNEYS AT LAW
12TH FLOOR STANDARD PLAZA
PORTLAND, OREGON 97204
TELEPHONE 503-222-9981
CABLE ADDRESS: "ROBCAL"
ROBERT T. MAUTZ (1905-1969)

CALVIN N. SOUTHER
BRUCE SPAULDING
WILLIAM H. KINSEY
WAYNE A. WILLIAMSON
JOHN L. SCHWABE
GORDON MOORE
KENNETH E ROBERTS
FORREST W. SIMMONS
JAMES B. O'HANLON
DOUGLAS M. THOMPSON
JAMES R. MOORE
A. ALLAN FRANZKE
ROLAND F. BANKS, JR.
GINO G. PIERETTI, JR.
DOUGLAS J. WHITE, JR.
JOHN B. SOUTHER
ROCKNE GILL
JAMES A. LARPENTEUR, JR.
JAMES F. SPIEKERMAN
ROBERT G. SIMPSON
RIDGWAY K. FOLEY, JR.
THOMAS M. TRIPLETT
ROBERT E. JOSEPH, JR.

STEPHEN B. HILL
PAUL N. DAIGLE
ROBERT T. HUSTON
KENNETH D. RENNER
KENNETH E. ROBERTS, JR.
DONALD JOE WILLIS
J. LAURENCE CABLE
GREGORY W. BYRNE
MICHAEL D. HOFFMAN
JAMES D. HUEGLI
HENRY C. WILLENER
TERRY C. HAUCK
MARK H. WAGNER
JAMES L. FITZGERALD
JOHN G. CRAWFORD, JR.
DON R. LLOYD
NEVA T. CAMPBELL

EDWIN D. HICKS
COUNSEL

September 24, 1974

Oregon State Highway Department
State Highway Building
Salem, Oregon 97310

Re: Stadium Freeway, Units A & B

Gentlemen:

This office represents Klaas, Bros, Inc. who performed painting services in connection with the above contracts. Could you please send us some copies of the Special Provisions for Highway Construction and Supplemental Standard Specifications for Stadium Freeway Units A & B, East Fremont Interchange.

Very truly yours,

Rockne Gill

RG:sb

RECEIVED
SEP 27 1974
SPECIFICATIONS UNIT

RECEIVED
SEP 26 1974
PROJECT MANAGEMENT SECTION

NOTED
A. E. JOHNSON

RECEIVED
STATE HWY ENGR
SEP 25 74
REFER TO
FOR
Info | Inves | R/D | C/R | Stm | Act | File

#7310

DEPARTMENT OF JUSTICE

Memorandum

DATE: October 4, 1974

TO: F. B. Klaboe
Administrator and State Highway Engineer

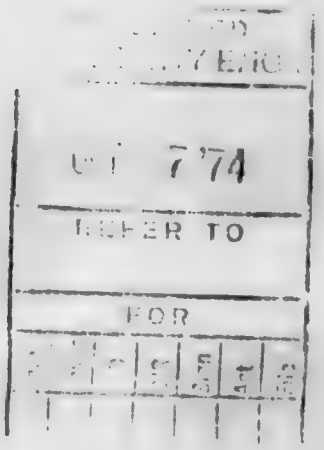
FROM: Leslie B. Hampton LBH
Assistant Chief Trial Counsel

SUBJECT: Anderson-Hanna vs. State
L-7122

Complete file in #7214

This will confirm that your deposition has been scheduled for October 24 at 10:00 a.m. in the Highway Building. We will contact you earlier that week to discuss the deposition.

nd



7310

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

October 1, 1974

Salem, Oregon

FILE: Contracts 7310
7214, 7276

ORIGINAL SIGNED
R.W. ELLISON

FROM: R. W. Ellison
Bridge Administration Engineer

TO: Mr. Leslie Hampton
Assistant Chief Trial Counsel

SUBJECT:

Fremont Bridge and Interchanges
Paint Litigation

The following prefixes are to be used when making charges in connection with litigation involving painting of the Fremont Bridge and Fremont Interchanges.

	Contract No.	Prefix
E. Fremont Interchange	7310	626-1017-286
W. Fremont Interchange	7214	626-1011-286
Fremont Superstructure	7276	626-1013-286

RWE/ag

cc A. E. Johnson
W. Barrie
E. Hardt
W. Hart
R. Shotwell
J. Jenkins
R. Bothman
C. Lobaugh
V. Skoog
L. Miller

NOTE
A.E. Johnson

RECEIVED
STATE HWY ENGR
OCT 2 '74
REFER TO
FOR
Info
Invest
R/D
D/R

Ellison will send copies to Hunter, Caulfield & John Howard.
ag

#7510

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

August 21, 1974

NOTED
H. S. COULTER

Union Pacific Railroad Company
1416 Dodge Street
Omaha, Nebraska 68179

Re: Bill No. 216908
Month's Account 4-1974
GB-81 Dept. No. 476
Amount: $799.55

Attention: R. D. Nikodym, Supervisor
Accounts Receivable

Dear Mr. Nikodym

In reply to your inquiry of July 8, 1974, please be advised that this work was done for the contractor on this job and would be one hundred percent payable by the contractor.

The contract was completed April 27, 1973, and was accepted July 5, 1973, and the final release of all retainage was made on August 2, 1973.

This was followed by a claim settlement on December 27, 1973. We were not aware that the Railroad had any outstanding bills and did not receive the first billing from you until April 8, 1974.

Inasmuch as we do not have any retainage left from this contract, and as the bill was submitted over a year after the contract was completed and about nine months after it was accepted by the Highway Division, there is no way that we can pay this bill.

I would suggest that you refer this bill directly to the contractor.

We are not in a position to make payments of bills which are delayed such as this one. It appears that the work was done

RECEIVED
AUG 22 1974
Office of
Assistant State Highway Engineer

in the Fall of 1973, and that the Railroad company was aware of the fact that the contract had been completed.

Perhaps some method should be worked out whereby the Railroad can advise the Highway Division of any outstanding billings they have on contracts so that retainage may be kept on hand to pay such claims.

Sincerely

Jack L. Sollis
Assistant Attorney General

gv
cc: H. S. Coulter
Richard J. Hacek
James E. Chidsey

7310

496.5

July 3, 1974

Mr. Paul L. Heineman
Howard, Needles, Tammen & Bergendoff
1805 Grand Avenue
Kansas City, MO 64108

Dear Mr. Heineman:

Fremont Bridge Approaches
Contracts 7214 and 7310
Structural Steel Shop Drawings on Loan
to U.S. Customs

The drawings referred to in your letter of June 17 were picked up at this office by Mr. James C. McCarthy of the Bureau of Customs for the purpose of determining their value and will be returned in about one month.

Enclosed is a copy of the letter of transmittal and an itemization of the materials received by Mr. McCarthy.

Very truly yours,

F. B. Klabee
Administrator and
State Highway Engineer

Enclosures

bc: A. E. Johnson
E. S. Hunter
Jack Sollis
W. J. Hart

JHA:dh cm

7310

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

June 25, 1974

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

Mr. James C. McCarthy, Special Agent
U. S. Treasury Department
Bureau of Customs
511 N. W. Broadway
Portland, OR 97209

Dear Mr. McCarthy:

Fremont Bridge, East and West Approaches
Contracts 7214 and 7310, Loan of Shop Drawings

In accord with yesterday's discussion between you and Mr. Jack Sollis, our legal counsel, we are sending you, with this letter, six boxes of reduced structural steel shop drawings for the subject structures. These drawings are in six of our standard file boxes labeled "A" through "F". These boxes are further referenced to the boxes in our file which contain the original drawings (copies) and allows identification of box content.

It is understood you will require use of these drawings for approximately one month and that the Bureau of Customs will reimburse the State at the rate of 25 cents per sheet for all sheets not returned.

Please indicate below your receipt of boxes "A" through "F" and your liability for lost sheets.

Very truly yours,

Walter J. Hart
Bridge Engineer

R. W. Ellison

R. W. Ellison
Bridge Administration Engineer

RWE:dh
Attachments
cc Jack Sollis, E. S. Hunter

I received the above described boxes "A" through "F" from the Oregon State Highway Division on June 25, 1974. The above indicated rate for reimbursement to the State for any copies lost while in my custody is acceptable.

James C. McCarthy, Special Agent

E Fremont Intelig
Structural Steel Shop Drawings

Old Box #

x "A"	1	"WS" Line	
	2	"WN" Line	
	3	Steel-Steel Link Details	
	4	"NW" Line	
	5	"SW" Line	
	6	"EW" Line	Units 1-2
xx "B"	7	"EW" Line	Unit 3
	8	"EW" Line	Unit 4
	9	"WE" Line	Unit 1
	10	"WE" Line	Unit 4
x "C"	11	"WE" Line	Unit 5
	12	Misc. Dwgs.	(Box 1)
	13	Misc. Dwgs	(Box 2)
	14	"WE" Line	Units 2-3

Also Erection Dwgs.

W. Fremont Intchg Structural Steel

Girder Numbering System Index

Old File Box		Girder #	Bridge Unit
Box "D"	1	201-214	1 WE
		215-234	1 SE
	1A	235-248	1 EW
	2	249-268	1 ES
		269-286	2 SE
	2A	287-304	2 ES
Box "E"	3	305-314	1 SW
		315-324	2 SW
		325-339	3 ES
	3A	340-354	3 SE
	4	355-362	1 WS
		363-370	2 WS
		371-380	3 WS
		381-390	3 SW
	5	Misc Steel Shop Dwgs.	
Box "F"	6	Misc Steel Shop Dwgs. cont.	
	7	Steel Shop Dwgs.	
		Steel-Steel Link Details	
	8	Ring Piers	

HOWARD NEEDLES TAMMEN & BERGENDOFF

RECEIVED
STATE HWY ENGR
JUN 19 '74
REFER TO
FOR
Info | Supv | Dist | Dist | Supt | Asst | Asst

NOTED
A. E. JOHNSON

June 17, 1974

Mr. F. B. Klaboe
Administrator and State Highway Engineer
Oregon Department of Transportation
State Highway Building
Salem, Oregon 97310

Re: Fremont Bridge Approaches

Dear Mr. Klaboe:

In the past two years we have been asked by the U. S. Customs Bureau for information regarding the work done by CANRON on the subject project. This information was supplied with the authorization of the OSHC. Apparently this was in connection with some additional duty claimed by U. S. Customs for the structural steel shipped into the U. S. by CANRON for the project.

In the past week it has become apparent that U. S. Customs is now planning to assess duty on the shop drawings and are contending the value of the drawings to be the cost of making the original drawings contrasted to the nominal value of the prints.

They are pursuing this approach even though we have taken the position that:

1. The shop drawings were never assigned to or owned by HNTB.

2. The shop drawings were never used in the United States for fabrication, assembly or erection of any portion of the bridge (erection drawings were prepared in the United States.)

3. If the drawings were subject to duty, that duty was not assignable to us because we had neither ordered the drawings nor did we have any form of title to them at any time when they were in our possession.

4. The drawings could be used only by the fabricator who had originally prepared the drawings in his own shop for the single contract of the Fremont Bridge approaches, and lastly,

5. The cost of producing the shop drawings was a part of CANRON's cost reflected in the value of the steel as shipped, on which duty has already been paid.

RECEIVED
JUN 19 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Planning Engineering Architectural Services

1805 Grand Avenue, Kansas City, Missouri 64108, 816 474-4300

Partners H C Lamberton, Jr., James F. Finn, Paul L. Heineman, Joseph H. Looper Robert O. Drange Bernard H. Rottinghaus, Gerard F. Fox, William M. Wachter, George K. Erganian, Browning Crow, Charles T. Hennigan, Edgar B. Johnson, Daniel J. Watkins, Daniel J. Spigai
Associates Rex M. Whitton, Daniel J. Appel, William C. Meredith, Orrin Riley, Francis X. Hall, Robert W. Richards, Robert S. Coma, Don R. Ort, John L. Cotton, Donald A. Dupes, Frederick H. Sterbenz
Offices Alexandria, Va., Atlanta, Baltimore Baton Rouge Boston, Buffalo, Cape Coral, Fla., Charleston W. Va., Chicago, Cleveland, Dallas, Fairfield, N. J. Indianapolis, Kansas City, Miami, Milwaukee, Minneapolis, Newark, Del., New York, Orlando, Overland Park, Kan., Philadelphia, Richmond, Seattle, Washington, D. C., Woodbridge, N. J., Lisbon, Rio de Janeiro

Re: Fremont Bridge Approaches

We do not know how the U. S. Customs will arrive at the value or the assessment. We do not even have copies of the drawings. They were discarded on completion of the project as is our usual practice. U. S. Customs indicated they might approach your office for copies of the drawings.

We felt you should be aware of this situation which could result in some costs properly the responsibility of the contractor. We don't know if there are any precedents to this concept, but you may want to consider this, as we are, in future situations involving foreign contractors for work in this country.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

Paul L. Heineman

PLH/vo

Copy to:
Mr. Walter J. Hart

7310

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

NOTED
S. HUNTER

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

June 25, 1974

Mr. James C. McCarthy, Special Agent
U. S. Treasury Department
Bureau of Customs
511 N. W. Broadway
Portland, OR 97209

RECEIVED
JUN 25 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Dear Mr. McCarthy:

Fremont Bridge, East and West Approaches
Contracts 7214 and 7310, Loan of Shop Drawings

In accord with yesterday's discussion between you and Mr. Jack Sollis, our legal counsel, we are sending you, with this letter, six boxes of reduced structural steel shop drawings for the subject structures. These drawings are in six of our standard file boxes labeled "A" through "F". These boxes are further referenced to the boxes in our file which contain the original drawings (copies) and allows identification of box content.

It is understood you will require use of these drawings for approximately one month and that the Bureau of Customs will reimburse the State at the rate of 25 cents per sheet for all sheets not returned.

Please indicate below your receipt of boxes "A" through "F" and your liability for lost sheets.

Very truly yours,

Walter J. Hart
Bridge Engineer

R. W. Ellison

R. W. Ellison
Bridge Administration Engineer

NOTED
R. L. SCHROEDER

RWE:dh
Attachments
cc Jack Sollis, E. S. Hunter

I received the above described boxes "A" through "F" from the Oregon State Highway Division on June 25, 1974. The above indicated rate for reimbursement to the State for any copies lost while in my custody is acceptable.

RECEIVED
JUN 25 1974
Office of
Assistant State Highway Engineer

/s/ James C. McCarthy
James C. McCarthy, Special Agent

7310

8

FORM 81-734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon
June 24, 1974

FROM: R. W. Ellison
Bridge Administration Engineer

TO: Memo to the File

SUBJECT:
Fremont Bridge
East and West Approaches
Contracts 7214 and 7310
Duty on Shop Drawings

NOTED
E. S. HUNTER

Today Mr. James C. McCarthy, Special Agent for the U. S. Treasury Department, Bureau of Customs, and partner visited me regarding shop drawings for the structural steel for the East and West Approaches to the Fremont Bridge. They believe it is possible that all assessable duty has not been paid on these shop drawings.

Apparently duty on structural steel is assessed at the rate of 5 1/2% while duty on shop drawings and other blue prints is assessed at the rate of 6 1/2%.

When duty was assessed on the value of the structural steel for these projects, the cost of shop drawings was apparently included and assessed at the rate of 5 1/2%. U. S. Customs is now attempting to determine the value of the shop drawings—that is, the value of the labor to produce the shop drawings in order that they may assess the remaining 1%. It is apparently their opinion that since the drawings were sent by mail from Canron in Canada to Howard, Needles in the U.S., Howard, Needles is liable for the additional duty.

Mr. McCarthy asked that U.S. Bureau of Customs be allowed to borrow our reduced copies of the shop drawings for approximately one month in order that their expert in St. Louis can estimate the value of the drawings. I informed him that I would check with our legal department about the proper procedure for their acquisition of the drawings and would inform him (Mr. McCarthy) of the necessary steps to take.

RWE:dh

cc Jack Sollis
F. B. Klaboe
A. E. Johnson
E. S. Hunter

RECEIVED
JUN 25 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

7310

May 31, 1974

Mr. Walter Barrie
Assistant Attorney General
and Counsel
Department of Justice
100 State Office Building
Salem, OR 97310

Dear Mr. Barrie:

Fremont Bridge Paint Claims

The following people are to be considered a team to work with Attorney John Leahy in connection with the subject claims:

Ed Hardt, Region I Engineer

Charles Lobaugh, HE3 (Shotwell's crew)

John Howard, Resident Engineer, Portland

Robert Shotwell, Resident Engineer, Portland

Robert Cunningham, Assistant Metropolitan Engineer

Jack Davis, Bridge Section, Salem

Very truly yours,

ORIGINAL SIGNED BY
A.E. JOHNSON

A. E. Johnson
Deputy State Highway Engineer

AEJ:ja

bc F. B. Klaboe
M. S. Coulter
Walt Hart
Ed Hardt
Charles Lobaugh
John Howard
Robert Shotwell
Robert Cunningham
Jack Davis

7310

A. E. Johnson

OREGON STATE HIGHWAY DIVISION

REGION 1

P.O. BOX 02157 • PORTLAND 97202 • Phone 654-7741, Ext. 262

May 24, 1974

TOM McCALL
GOVERNOR

GEORGE M. BALDWIN
Administrator of Highways

RECEIVED
STATE HWY ENGR
MAY 29 '74
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FOR
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JOHN L. BEATON
Materials and Research Engineer
Division of Highways
5900 Folsom Blvd.
Sacramento, CA 95819

Dear Mr. Beaton:

During the construction of the Fremont Bridge and its approaches in Portland, a $75 million project, a serious problem developed regarding the water-borne inorganic zinc primer paint. Within 2-3 months after application, and before topcoating, the structural steel which had this primer applied began to show rust. The direct cost of repairing this paint breakdown was about $300,000 and the indirect impact costs to the project are alleged to be many times that amount.

This paint was applied in a controlled-environment paint shed in Vancouver, B.C. The paint used was Exxon's RB 191 and 193, and curing acid was used to accelerate the cure.

The painting subcontractor has submitted an analysis of the problem stating that the breakdown was caused by attack of the zinc paint by the SO_2 in the Portland environment. In the presentation Attorney Franzke has used a letter over your signature to illustrate the poor quality of this type of paint. For your convenience I have attached a copy of your letter and page 12 of the presentation.

It would be appreciated if you would amplify your statement that "it did not provide sufficient corrosion protection". Any information that you can provide relating to your experience with water-borne inorganic zinc which might shed some light on our problem

cy Hall Hunt
5-31-74

6-123

would be helpful. Incidentally, Oregon has stopped using this product on our maintenance painting of coastal bridges due to the problem of application and cure in the exposed, cool, humid environment.

Thank you for your cooperation.

Sincerely,

ORIGINAL SIGNED BY EDWARD L. HARDT

EDWARD L. HARDT
Regional Engineer

Attachments

ELH/cr
bc A. E. Johnson w/attach.
John Leahy w/attach.

STATE OF CALIFORNIA—TRANSPORTATION AGENCY

RONALD REAGAN, Governor

DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
MATERIALS AND RESEARCH DEPARTMENT
5900 FOLSOM BLVD., SACRAMENTO 95819

5900

February 16, 1972

Mr. Richard A. Franzke
Twenty-Third Floor
900 SW Fifth Avenue
Portland, Oregon 97204

Dear Mr. Franzke:

This is in answer to your letter of February 10, 1972 relative to our use of zinc-rich primers.

The lithium silicate self cure type (water base) was abandoned in our 1971 Standard Specifications. It did not provide sufficient corrosion protection. We are enclosing copies of our self cure ethyl silicate inorganic systems. However, we will not specify their use in the future. The ethyl silicate systems are excellent, but are too complex and sophisticated in application properties. Any deviation in these properties can cause serious failures in adhesion and mudcracking of the dried paint film.

From exposure and salt spray testing to date we find that the phenoxy zinc rich primers not only provide excellent corrosion protection, but have eliminated most of the application limitations characteristic of the inorganic zinc rich primers (aqueous and ethyl silicate).

We trust this information will assist you.

Very truly yours,

JOHN L. BEATON, P.E.
Materials and Research Engineer

HAR:bd

Enclosures

RECEIVED

In summary, if OSHD persists in defining "faulty paint" simply in terms of whether the paint met the manufacturer's specification, there is no sense in examining the issue. However, if "faulty" defines whether the paint prevented the steel from rusting as in theory it is supposed to do, there is irrefutable evidence from OSHD, Carboline, Canron, Can Test and photographs that the paint permitted rusting to occur even in the presence of the specified coating thickness.[15]

The State's reasoning that "faulty paint" must not have been the cause of the rusting because the failure was "spotty" at the same time destroys its contentions that poor workmanship, application methods or use of accelerator are responsible. These issues will be discussed in more detail below.

A-2 PRIMER FAILED DUE TO PORTLAND ENVIRONMENT

ITEM: (OSHD p 5) The statement is made "This is the contractor's explanation for the failure of the zinc primer."

COMMENT: We have never claimed that we in fact know the cause of the primer failure; further we doubt that anyone else "knows" for certain or that we will ever know for certain why the zinc primer, on both of our projects as well as Murphy Pacific's, has not prevented rust as it theoretically should. What we have said, and still believe, is (1) the effects of the atmosphere are the ultimate cause of zinc deterioration, (2) the atmosphere in Portland reached a high level of SO_2 concentration in late 1970, which aggravates the attack, and (3) a seal coat would have avoided the problem.

---

15 The State of California has abandoned use of water base inorganic zinc "because it did not provide sufficient corrosion protection." See Exhibit II. This is further evidence that the water base type specified by OSHD has been a disappointment in practice, failing to live up to its theoretical expectations.

7310

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

May 22, 1974

Mr. Leslie B. Hampton
Assistant Chief Trial Counsel
100 State Office Building
Salem, OR 97310

NOTED
E. S. HUNTER

Dear Mr. Hampton:

Illumination of Pacific Railroad Yard
East Fremont Interchange
Stadium Freeway, Multnomah County
Contracts 7310, 7311, 7312

As requested, we have taken illumination readings after installation of two floodlights in the Union Pacific rail yard at the East Fremont site. Enclosed are two copies of drawing 25303 showing, in red, the points where readings were taken and a xerox listing of illumination levels at these various points.

Readings were taken at the five points between piers 13 and 14 since this was the area in question. The adequacy of the remainder of the site was agreed to at the December 14, 1972 meeting.

It is felt that this installation should answer the objections of Union Pacific regarding this location.

Very truly yours,
ORIGINAL SIGNED
WALTER J. HART
Walter J. Hart
Bridge Engineer

RMD:dh
Enclosures
cc E. S. Hunter
Jack Sollis
R. N. Bothman /w/ encl.
E. L. Hardt
Robert Shotwell
James Chidsey /w/ encl.
Robert M. Dixson

RECEIVED
MAY 28 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

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N.O.T.
F. B. [illegible]

OREGON STATE HIGHWAY DIVISION

REGION 1

P.O. BOX 02157 • PORTLAND 97202 • Phone 654-7741, Ext. 262

May 9, 1974

TOM McCALL
GOVERNOR

GEORGE M. BALDWIN
Administrator of Highways

Mr. Frank Koehler
Exxon Chemical Company
P. O. Box 201
Florham Park, New Jersey 07932

Fremont Bridge Inspection

Dear Frank:

I have your May 3 letter regarding your recent visit to Portland. At that time you mentioned that within a week or two we would have Exxon's comments on John Saroyan's work on the Fremont inorganic zinc failure, as well as your comments on my analysis of the problem.

I am presently analyzing Attorney Franzke's latest comments on the problem. It would be helpful if I had your review of this problem in hand for my work. Can you give me some idea when I might expect your review? Incidentally, my address is as shown above.

Sincerely,

Edward L. Hardt
Regional Engineer

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ELH/cr
bc A. E. Johnson
John Leahy

cy Hall Hardt
5-13-74

E-123

EXXON CHEMICAL COMPANY U.S.A.

P O Box 201, Florham Park, New Jersey 07932

SPECIALTIES DEPARTMENT
INDUSTRIAL COATINGS DIVISION
J. FRANKLIN KOEHLER
Manager - Marine and Export Sales

EXXON CHEMICALS

May 3, 1974

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Mr. E. L. Hardt
District Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Inspection
Fremont Bridge

Dear Ed:

I wish to express our sincere appreciation for your courtesy in taking time to meet Don Wood, John Owen and myself last month and for showing us the Fremont Bridge structure. While our primary objective was to introduce Don Wood to you and to have him see the Fremont Bridge, Mr. Franzke's efforts to get us to cancel our visit created a somewhat difficult situation. Nevertheless, we all did find our visit to be of interest and we do thank you for your kindness in meeting us at the airport and in giving us the "guided tour".

We were pleased to have the opportunity of meeting Mr. John Leahy and found his remarks regarding the potential claim situation to be helpful in understanding the present status of the subject problem. I especially want to thank you for the informative pamphlets on Oregon and for your kindness in presenting me with a new case for my Norelco cassette recorder. I hope I will have more time to visit with you during my next trip to the West Coast...meanwhile, best personal regards.

Yours very truly,

JFK/emd

P.S. I am forwarding under separate cover a copy of our latest issue of our Coastline book series "Cape May to Montauk Point" which I hope you will find to be of interest.

cc: A E Johnson & John Leahy

LEE JOHNSON
ATTORNEY GENERAL

7310

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

U.P.R.R. Easement
Condemnation Case

April 15, 1974

NOTED
H.S. COULTER

James W. Diffenderfer, P.E.
115 E. Benedict Avenue
Havertowne, Pennsylvania 19083

Dear Mr. Diffenderfer

As we have discussed the above-mentioned case is set for trial and it is very probable that it will be tried as scheduled beginning June 24, 1974. There will be substantial preparation for you and the other witnesses prior to that date.

Your report covers the effect of the Fremont Bridge upon railroad operations on both the westerly side (Southern Pacific) and the easterly side (this case) of the Willamette River. You advised me that at the time your study and report was made there was a $4,000 limit on the amount of work authorized by the Highway Division. You also advised me that because of inflationary factors in the seven years since your original study, that your daily rate for professional services was now $300.

We did not contemplate that the fee for your study and report would include the preparation for trial and your time during the trial itself. Your $300 per diem fee is satisfactory and the increase was justified by the inflationary factor.

This letter is to advise you that you will be compensated at your per diem rate plus travel, food and lodgings for additional work as I request for the preparation and trial of this case. We do not have a prescribed form for billing purposes. Your billing can be on your letterhead and should set out the dates and times the services are performed and a

NOTED
A.E. JOHNSON
APR 2 - 1974

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LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

very brief note as to the nature of the service. Also include a statement of the expenses showing the date, item and amounts thereof. If you have questions concerning your billing don't hesitate to contact me further.

Sincerely

Leslie B. Hampton
Assistant Chief Trial Counsel

cs
cc: Mr. Fred B. Klaboe
Mr. Jay B. Boyd

7310

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
108 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

January 23, 1974

NOTED
A. E. JOHNSON

Mr. Preston C. Hiefield, Jr.
Attorney at Law
Boise Cascade Building
Portland, Oregon 97201

Re: Fremont Bridge Impact Claim of Drake Willamette J.V.
on Contracts numbered 7310, 7311 and 7312.

Dear Mr. Heifield

For the purpose of clarifying OSHD's position on the above matter with regard to limitation of suits or action provision in Section 9-16 of the "Standard Specifications for Highway Construction 1964", you are notified that the above claim including the subcontractor claims included therein are rejected.

Sincerely

John Leahy
Chief Trial Counsel

am
cc: Norman Kobin
✓F. B. Klaboe
Walter Barrie
Richard Franzke

cy - Coulter
Hall Hart
1-29-74

NOTED
F. B. KLABOE

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7310

January 22, 1974

Mr. John Leahy
Chief, Trial Section
Department of Justice
State Office Building
Salem, OR 97310

Dear Mr. Leahy:

Re: Contractor Claims

For over a year negotiations have been carried on over a claim on the East and West Fremont Bridge projects. These negotiations have not been fruitful.

It is now requested that your Department take over and handle these cases for us. Our engineers will be instructed to work with you in any way you see fit.

Very truly yours,

F. B. Klaboe
Administrater and
State Highway Engineer

FBK:ms
cc Walt Barrie
bc A. E. Johnson
M. S. Coulter
W. J. Hart
Ed Hardt
C. T. Keasey
R. W. Bothman

#7310

3-4

January 11, 1974

Mr. Glen L. Green
Division Engineer
Federal Highway Administration
Box 300
Salem, OR 97308

Dear Mr. Green:

Oregon Project I-405-8(4)303
Fremont Bridge Section
File 36037 - Union Pacific Railroad

By a letter dated December 20, 1973, you requested the status of the subject 1969 partial settlement between the State and the Union Pacific Railroad which left unresolved the amount of compensation for an air easement.

Attached is a copy of a December 28, 1973 letter written by Assistant Chief Trial Counsel Les Hampton, wherein he states it is his belief that a favorable settlement is forthcoming in the not-too-distant future.

If you wish further information, please advise.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

Attachment

bc F. B. Klaboe
J. B. Boyd

JBB:jp ja

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

December 28, 1973

Mr. J. B. Boyd
Director of Right of Way
State Highway Building
Salem, Oregon 97310

Re: State vs. O W R & N Co., et al
Case No. 379-083
(L-6682, R-36087)

Dear Mr. Boyd

You asked for a report on the status of the above-mentioned case so that you can reply to an inquiry from the Federal Highway Administration. This case was filed in April, 1972, and has taken a greater than normal period of time for processing. The conditions and restrictions on the state's use of the easement being acquired from the railroad and the railroad's use of the remaining land were primarily established by a permit of entry executed by the railroad. We have had discussions with the railroad concerning these respective conditions. The railroad also proposed some changes in those conditions. As a result, we filed an amended complaint and a second amended complaint. The railroad, through their attorney, still has some objections to the most recent complaint. It is possible that a further amended complaint will be necessary.

In any event, the Multnomah County Circuit Court is now concerned with the age of this file. Prior to February 1, 1973, the undersigned and attorneys are to meet with the presiding judge to arrange for a trial date. In my opinion, that date will be not later than April and more probably in March, 1974.

The only answer filed by the railroad pleads just compensation to be $816,423. In spite of this excessive claim, I

somehow have the feeling that the railroad will not litigate this acquisition and that settlement will be possible.

Sincerely

Leslie B. Hampton
Assistant Chief Trial Counsel

jm

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 20, 1973

In reply refer to: 10-35.6

SUBJECT: Oregon Project I-4-5-8(4)303
Fremont Bridge Section
File 36087
Union Pacific Railroad

FROM : G. L. Green, Division Engineer

TO : Mr. F. B. Klaboe, Administrator & State Highway Engineer
Salem, Oregon

In 1969 a partial settlement was concluded between the State and the Railroad which left unresolved the amount of compensation for an air easement. Please advise the status of this case and what action is being taken to reach a settlement or proceed to condemnation.

We understand that interest may accrue on any award and the longer time that goes by the greater the amount of interest. Unless there are other considerations we believe action should be taken to reach a settlement or proceed to condemnation. Your comments are requested.

Jno. L. Green

[illegible]
A. E. [illegible]

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DEPARTMENT OF JUSTICE

Memorandum

TO: File

DATE: January 9, 1974

FROM: Leslie B. Hampton
Assistant Chief Trial Counsel

SUBJECT: State of Oregon v. OWR & N Co., et al
Multnomah County Circuit Court
Case No. 379-083 (File L-6682) R-36087

NOTED
A. E. JOHNSON

This file involves the taking of right of way and easements to extend the east approaches to the Freemont Bridge over and across the Defendant's railroad yards. On Monday, January 7, 1974 the undersigned met with Mr. Hart, Bridge Engineer and Mr. Chidsey, Railroad and Utilities Engineer to discuss a feature of the second Amended Complaint relative to the Defendant's use of their remaining real property, and the objections of the railroad attorneys thereto.

This file had a history of difficuult negotiations between the railroad and the Highway Division. In 1969 a Permit of Entry and Agreement was hammered out and executed by the Railroad and the Highway Commission. The terms of the Permit of Entry were approved by the Federal Highway Administration. One of the provisions of the Permit of Entry and the Complaint filed in the case was that the Railroad would not "construct any buildings or structures or conduct any activities within five feet of the supporting piers of said highway structures".

NOTED
E. S. HUNTER

Certain changes were requested by the Railroad, some were granted. The Railroad wanted to amend the above provisions by adding "except railroad tracks may be constructed and operated adjacent to said piers, providing that the end of the ties under the tracks are not closer than five feet to the exposed portion of the pier".

Last fall we filed our second Amended Complaint to incorporate agreed on changes into this proceeding. Somehow the language in question was modified to prevent any activity within "fifteen feet" of supporting piers, and to provide that center line of tracks be not closer than twelve and one-half feet to the piers. I did not notice that particular change prior to the filing of said

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ASSISTANT STATE HIGHWAY ENGINEER

Amended Complaint. The attorneys for the Railroad object to this change as being a major departure from prior agreements and an added limitation in the use of their remaining property.

In reviewing this matter, we could not pinpoint the source of the change of language from five to fifteen feet. However, we did determine that the change was not based upon a "studied engineering necessity". Mr. Hart advised the undersigned that he would approve a return to the original language of the Permit of Entry and the original Complaint as quoted above. The decision was important to this case. Our railroad expert, Mr. James W. Diffenderfer determined that the construction of our facility will not damage the Railroad's remaining property as far as railroad operations are concerned. From a review of his report, I fear that the change from five to "fifteen feet" would effect that opinion. If will be necessary to file a third Amended Complaint to restore the status quo and to make two necessary technical changes in the second Amended Complaint.

cc: A. E. Johnson ✓
Deputy Highway Engineer

Walter J. Hart
Bridge Engineer

J. B. Boyd
Director of Right of Way

James E. Chidsey
Railroad and Utility Engineer

Jack L. Sollis
Assistant Attorney General

7310 C

5

Claim 7852

FILED
JAN - 3 1974
CLAY MYERS
SECRETARY OF STATE

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

January 2, 1974

Davies, Biggs, Strayer
Stoel and Boley
Twenty-Third Floor
900 S.W. Fifth Avenue
Portland, OR 97204

Attention: Richard A. Franzke

Gentlemen:

This is to acknowledge receipt of your letter of December 27, 1973, informing us that Willamette River Constructors owes your client, Canron Limited, $453,197.60 for structural steel and related items.

From the description given in your letter, this appears to be in reference to the Willamette River Constructors (joint venture-Donald M. Drake Co. & Willamette-Western Corp.) contracts numbers 7310 and 7311 for work on the East Fremont Interchange, Unit A and Unit B, section of the Stadium Freeway in Multnomah County.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bonds on these contracts. We will advise them of the receipt of your client's claim, and we will also forward it to the Secretary of State for filing.

Please advise this office when your client's claim has been satisfied.

Very truly yours,

NOTED ON CARD
1/16/74

C. W. Head, Manager
ADMINISTRATIVE SERVICES

NOTED
C. W. HEAD
REC 1/4/74

js
cc: The Travelers Indemnity Company
General Insurance Co. of America
Willamette River Constructors

Hon. Clay Myers - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
DAVID L. CAVIES
HUGH L. BIGGS
MANLEY D. STRAYER
THOMAS M. STOEL
PAUL L. HOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERS
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
EDWARD L. EPSTEIN
BRIAN G. BOOTH
WILLIAM M. McALLISTER
BARNES H. ELLIS
HOWARD M. FEUERSTEIN
PHILLIP D. CHADSEY
KENNETH D. STEPHENS

JOHN E. HUISMAN
BERTRAND J. CLOSE
VELMA JEREMIAH

DAVID P. MILLER
TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
JERE M. WEBB
RONALD S. GROSSMANN
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
JOY D. ABELE
DONALD J. BOYD
WILLIAM G. MIGELY
GREGORY J. HOWE
JOHN M. SCHWEITZER
WILLIAM F. MARTSON, JR.
MICHAEL M. MORGAN
RICHARD M. BOTTERI
LESTER V. SMITH, JR.
PHILIP RUBIN
THOMAS R. NICOLAI
JON W. NICKEL
WILLIAM A. MASTERS
DOUGLAS B. GORDON
ROBERT L. NASH

December 27, 1973

C. W. Head, Manager
Administrative Services
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Mr. Head:

Enclosed are duplicate originals of a Notice of Claim by Canron Limited against Drake-Willamette for work performed on East Fremont Bridge Approaches. Please advise the General Insurance Company of America and The Travelers Indemnity Company of your receipt of this claim and forward it to the Secretary of State for filing.

Very truly yours,

Richard A Franzke mm

Richard A. Franzke

RAF:mm
Enclosures
cc: Mr. Bruce Jackson

RECEIVED
DEC 31 1973
HIGHWAY
ADMINISTRATIVE SERVICES

NOTICE OF CLAIM

TO: Oregon State Highway Division
(Department of Transportation)
Highway Building
Salem, Oregon 97310

Notice is hereby given that the undersigned CANRON LIMITED has a claim for labor and materials furnished by Canron Limited to Drake-Willamette, a joint venture, (aka Willamette River Constructors) in connection with structural steel and related items in the sum of

Four Hundred Fifty-Three Thousand One Hundred Ninety-Seven and 60/100 Dollars ($453,197.60)

against the bond taken from Drake-Willamette, a joint venture, (aka Willamette River Constructors) as Principal, and General Insurance Company of America and The Travelers Indemnity Company, as Co-sureties, for the work performed on East Fremont Bridge Approaches, State Highway Contracts Nos. 7310 and 7311.

CANRON LIMITED

By: Davies, Biggs, Strayer, Stoel & Boley

Edward G. Trompke

Attorneys

Date: 12/28/73

RECEIVED
DEC 31 1973
HIGHWAY
ADMINISTRATIVE SERVICES

I-405-8(22)E. Fremont Interch. Section 1970
304 of Stadium Frwy. in Portland
#7310 (Unit A) Folder #4

RR- 603

RR- [redacted]

RR- [redacted]

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 20, 1973

In reply refer to: 10-35.6

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
File 36087
Union Pacific Railroad

3-9

FROM : G. L. Green, Division Engineer

TO : Mr. F. B. Klaboe, Administrator & State Highway Engineer
Salem, Oregon

In 1969 a partial settlement was concluded between the State and the Railroad which left unresolved the amount of compensation for an air easement. Please advise the status of this case and what action is being taken to reach a settlement or proceed to condemnation.

We understand that interest may accrue on any award and the longer time that goes by the greater the amount of interest. Unless there are other considerations we believe action should be taken to reach a settlement or proceed to condemnation. Your comments are requested.

for G. L. Green

RECEIVED
STATE HWY ENGR
#3
DEC 24 '73
REFER TO
Byrd
R/W
FOR
Info | Invss | R/W | Eng | Maint | File
✓
12/26/73

7310

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
PORTLAND, OREGON 97201

NOTED
A. E. Johnson

December 10, 1973

NOTED
A. E. JOHNSON

Pittsburgh Testing Laboratory
Portland Office
611 S.E. Harrison
Portland, Oregon

Attention: Donald Scott, Manager

Re: (1) Inspection Contract of September 30, 1969
Involving the West Fremont Interchange
(2) Inspection Contract of December 23, 1969
Involving the East Fremont Interchange

Gentlemen:

May we have a reply to our letter of November 9, 1973? That letter requested that you contact us concerning your company's potential liability on the above contracts and contained a formal demand of inspection of your records pertaining to your inspection of the process at Canton, Ltd.

It is within all of our interests that attempts be made to resolve this matter amicably. Therefore, your earliest attention to this request would be desirable.

If you have any questions concerning this matter, do not hesitate to give me a call or have your attorney contact me at the above address.

RECEIVED
STATE HWY ENGR
DEC 10 73
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Sincerely,

JOHN H. CLOUGH
Assistant Attorney General

pjw

bcc: Walt Barrie
✓Al Johnson
Fred Klaboe
Ed Hardt

FREMONT BRIDGE COMPLEX PROJECT INFORMATION

PROJECT	CONTRACT NO.	CONTRACTOR	DATE AWARDED	DATE COMPL.	LENGTH (LANE FT.)	QUANTITIES STRUCT. STEEL (LBS.)	QUANTITIES CONCRETE (CY)	QUANTITIES REINFORCE. (LBS.)	ENGINEERING CONSULTANT	EXPENDITURES CONTRACT AMOUNT	EXPENDITURES TOTAL* AMOUNT	EXPENDITURES AMOUNT FOR ENGINEER CONSULT.
Fremont Bridge Pier Const.	7124	Peter Kiewit Sons' Co.	2-27-68	5-13-70	N/A	520,000	38,000	1,950,000	Parsons, Brinkerhoff, Quade & Douglas	3,957,623	4,186,200	Included in below
Fremont Bridge Superstructure	7276	Murphy-Pacific Enterprises	7-3-69	11-9-73	17,300	17,450,000	3,910	1,010,000	"	27,391,510	28,817,125	905,878**
West Fremont Interchange	7214	Anderson-Hannan	4-29-69	10-19-72	36,000	15,952,000	65,647	19,150,000	Howard, Needles, Tammen & Bergendoff	19,348,137	20,288,500	1,442,202
West Fremont Interchange (Unit 2)	7623	Drake-Willamette	8-26-71	5-5-73	Included in above	126,200	11,270	3,885,300	"	3,274,682	3,586,900	Included in above
East Fremont Interchange, Unit "A"	7310	Drake-Willamette	9-11-69	4-27-73	32,000	16,156,000	19,817	4,388,500	"	13,175,306	14,089,500	Included in above
East Fremont Interchange, Unit "B"	7311	Drake-Willamette	9-11-69	5-25-73	Included in above	8,740,800	15,725	2,989,400	"	9,026,940	9,450,000	Included in above
East Fremont Interchange, Unit "C"	7312	Drake-Willamette	9-11-69	11-28-72	Included in above	352,500	8,252	2,712,000	"	2,058,970	2,160,000	Included in above
TOTALS					85,300	59,297,500	162,621	36,085,200		78,233,168	82,580,225	2,348,080

TOTAL COST FREMONT BRIDGE COMPLEX $84,928,305

* Includes Additional Anticipated Items, Contingencies, and Construction Engineering
** Includes investigation of in-service crack

NOTED
E. S. HUNTER

RECEIVED
DEC 3 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

12-73
7310

7310

5

November 30, 1973

The Travelers Indemnity Co.
Fidelity & Surety Department
700 Main Street
Hartford, Connecticut 06108

General Insurance Co. of America
Portland Service Office
1500 S.W. 1st
Portland, Oregon 97201

Gentlemen:

A post-final payment for $5,138.67 will be made to Willamette River Constructors on Contract No. 7310 for the E. Fremont Interchange, Unit A of the Stadium Freeway in Multnomah County as soon as the warrant is prepared.

The total amount paid on this contract will be $13,173,305.98 including the post-final payment. Of the total, $109,118.44 is for force account.

Very truly yours,

C. W. Head, Manager
ADMINISTRATIVE SERVICES

ecr

cc Willamette River Constructors
1740 N.W. Flanders St.
Portland, Oregon 97209

C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Hacek
L. W. Rulien

7310

November 30, 1973

Mr. R. E. Grant
Vice President - Construction
Donald M. Drake Company
1740 N. W. Flanders Street
Portland, OR 97209

Dear Mr. Grant:

In reply to your November 12 letter concerning the status of your impact claim submitted in connection with the East Fremont Interchange Project, we propose to meet with you to present our analysis of the claim in order to attempt to settle it without litigation.

A date of 9 a.m. on Friday, December 21 in Room 120 of the Highway Building in Salem has been proposed and this will confirm that date.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

bc F. B. Klaboe
H. S. Coulter (enc.)
W. J. Hart
J. Clough "
Jack Sollis "
R. M. Bothman "
R. Shotwell "

ELH:ag ja

CONTRACTORS DEVELOPERS

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
INCORPORATED JANUARY 2, 1973

TELEPHONE (503) 226-3991

RECEIVED
STATE HWY ENGR
NOV 13 73
REFER TO
Hall Hann - Draft
FOR
Info | Invest | R/D | D/R | Sign | Act | File

November 12, 1973

Mr. Fred Klaboe, Administrator
and State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Mr. Klaboe:

By letter dated October 9, 1973, I requested your consideration in granting us a meeting for the purpose of discussing our impact claim on the East Fremont project.

On October 10, we received your letter, stating our claim had no basis in fact and was, therefore, denied.

These two letters apparently crossed in the mail. However, your statement seemed to close the door to any avenue of resolving this matter except through litigation.

At a meeting between the Highway Department and Anderson-Hannan, who have a similar claim situation, we understand it was agreed that the litigation process should be avoided if possible, and that further discussion was in order.

As a result of these events, I am uncertain as to the current status of our situation. It seems a response to our letter of October 9 is appropriate, advising us of your intent if it is now different than stated in your letter of October 10.

May we hear from you at your earliest convenience so that we may proceed accordingly?

Very truly yours,

DONALD M. DRAKE COMPANY

R. E. Grant, Vice President
Construction

REG:br

NOTED
W. J. HART

RECEIVED
NOV 14 1973
BRIDGE DIVISION

7310

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
106 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

November 26, 1974

Mr. A. E. Johnson
Deputy Highway Engineer
State Highway Building
Salem, Oregon

Re: Klaas Bros. Inc. v. Drake-Willamette

Dear Mr. Johnson

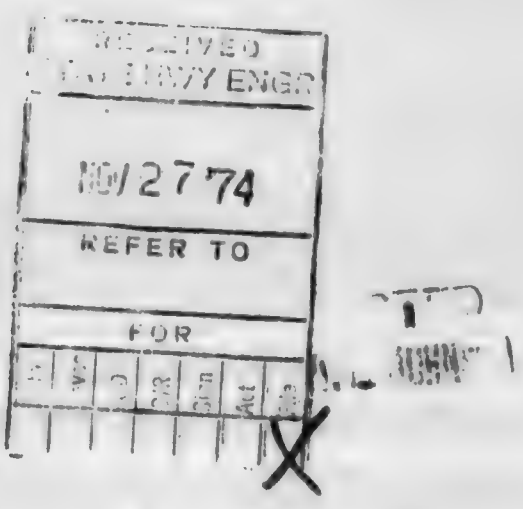
Klaas Bros., has sued Drake-Willamette in the Federal District Court for Oregon for their damages allegedly occurring during the construction of the Fremont Bridge. They asked for damages in the amount of $101,647.97. Preston C. Hiefield, Jr., attorney for Drake-Willamette tendered the defense of the Federal Court case to the State of Oregon. However, we have refused to accept the tender of the defense. For your information I forward herewith a copy of the complaint in the Federal case.

Sincerely

Les Hampton

Leslie B. Hampton
Assistant Chief Trial Counsel

am
cc: Walter Hart
Edward Hardt



ROCKNE GILL
SOUTHER, SPAULDING, KINSEY,
WILLIAMSON & SCHWABE
1200 Standard Plaza
Portland, Oregon 97204
Telephone: 222-9981

Of Attorney for Plaintiff

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

STATE OF OREGON, ex rel, KLAAS BROS., INC., Plaintiff, vs. DONALD M. DRAKE COMPANY, WILLAMETTE-WESTERN CORPORATION, dba WILLAMETTE RIVER CONTRACTORS, THE TRAVELERS INDEMNITY COMPANY, GENERAL INSURANCE COMPANY OF AMERICA, Defendants.	Civil No. 74-744 COMPLAINT ON SUBCONTRACT AND ON PERFORMANCE BOND FOR DAMAGES AND DEMAND FOR JURY TRIAL

Plaintiff complains and alleges:

1. The court has jurisdiction of this action under 28 USC §1332 in that the amount in controversy exceeds $10,000, exclusive of interest and costs, and there is diversity of citizenship of the parties, as follows:

a. Plaintiff, Klaas Bros., Inc. (hereafter "KBI"), is a corporation organized under the laws of the State of California and has no principal place of business in the state of Oregon.

- - -

b. Defendant, Donald M. Drake Company (hereinafter "Drake") is a corporation organized under the laws of the state of Oregon, and has its principal place of business in Oregon and not elsewhere;

c. Defendant, Willamette-Western Corporation (hereinafter "Willamette") is a corporation organized under the laws of the state of Oregon and has its principal place of business in Oregon and not elsewhere;

d. Defendant, The Travelers Indemnity Company (hereinafter "Travelers"), is a corporation organized under the laws of the state of Connecticut and has its principal place of business in Connecticut and not elsewhere;

e. Defendant, General Insurance Company of America (hereinafter "General Insurance"), is a corporation organized under the laws of the state of Washington and has its principal place of business in Washington and not elsewhere.

2. The Oregon State Transportation Commission, and the Highway Division of the Oregon State Department of Transportation acting under the direction of said Transportation Commission are, respectively, the statutory successors of the powers, duties and functions of the Oregon State Highway Commission and the Oregon State Highway Department acting under the direction of said Highway Commission. The state of Oregon acting by and through the Oregon State Highway Department before the statutory succession, and acting by and through the Oregon State Transportation Commission and the Highway Division of the Oregon State Department of Transportation

after the statutory succession, is referred to hereafter as the "State".

3. Shortly prior to September 11, 1969, Drake and Willamette organized and joined themselves into a joint venture under the firm name and style, "Willamette River Constructors", but otherwise generally called "Drake-Willamette" and hereafter referred to as "DW". DW was formed for the purpose of bidding upon and performing the one or more prime contracts to be let for the construction of the East Fremont Interchange for the State of Oregon.

4. On or about September 11, 1969, the State entered into several prime contracts with DW for the construction of the several units respectively of the East Fremont Interchange. So far as material here, the State and DW entered into prime contracts designated as Nos. 7310 and 7311 for the construction of the portions of the Interchange described and specified as "Unit A" and "Unit B", respectively.

5. On the same date, Drake and Willamette, as co-principals, and Travelers and General Insurance, as co-sureties, acting pursuant to law, duly executed and posted with the State the performance bonds required by law for contracts Nos. 7310 and 7311, respectively.

6. A true copy of those bonds and parts of these contracts are attached hereto and incorporated herein as Exhibits "A" and "B".

7. On or about June 24, 1970, DW subcontracted to KBI a portion of the work of those prime contracts by a single written subcontract of that date.

8. By the terms of that subcontract, DW promised and agreed among other things, as follows:

a. To pay KBI at the times and under the terms in the subcontract the sums specified therein in consideration of the performance of specified work by KBI. The sums specified and the work to be done were separately stated in the subcontract as follows:

> For KBI, work, labor, and materials on Unit "A" - $229,146
>
> For KBI, work, labor and materials on Unit "B" - $132,045.

b. To furnish for the use of KBI in its performance, certain materials and equipment; and to make the ~~site~~ of the work and structures to be worked on by KBI available in a timely manner for the proper and efficient performance of the work;

c. That DW will not delay, interfere with, or interrupt the work of KBI or otherwise fail reasonably to cooperate with KBI;

9. By the terms of said subcontract between DW and KBI, KBI promised and agreed, among other things, to perform and furnish certain of the work, labor, and materials for painting of the structural steel designated as a portion of prime bid item No. 33 of Unit "A" and a portion of prime bid item No. 75 of Unit "B".

10. KBI performed all conditions required of it to be performed, including performance of all the work and furnishing of all the labor and materials and all other things required of it by the terms of the subcontract for which, by the terms thereof, it was to be paid the prices provided therein.

- - -

11. At the order and request of DW, KBI also performed and furnished extra work, labor, and materials of an extent and magnitude beyond the scope and contemplation of the original subcontrac between DW and KBI, all of which extra work, labor and materials were on and used in the performance of said prime contracts Nos. 7310 and 7311.

12. In the course of its proper performance of its work under the subcontract, KBI suffered delays, interference, and interruptions and unreasonable failure of cooperation by acts and omissions of DW, which acts and omissions constituted breaches of the subcontract on the part of DW. KBI was forced to perform and furnish extra work, labor, and materials in order to overcome such breaches by DW and complete the subcontract work. The reasonable value of such extra work, labor, and materials thereby constitutes damages suffered by KBI as a proximate result of the breaches of DW.

13. DW has heretofore paid KBI in part for all of said extra work, labor, and materials. The balance which is unpaid and which is due and owing from DW to KBI for the reasonable value of said extra work, labor, and materials is in the amount of $101,647.97. Said sum is the reasonable value of the extra work, labor, and materials performed and furnished by KBI as alleged above for which KBI has not been paid.

14. Said sum first became due and owing to KBI on or prior to February 14, 1973. On February 14, 1973, KBI demanded payment in writing from DW of said sum. On September 18, 1973 KBI again demanded in writing that DW pay said sum.

15. On July 5, 1973, the State accepted the work of prime contracts Nos. 7310 and 7311 for Units "A" and "B", respectively. Said acceptance was by affirmative action of the State on that date in the sense of ORS §279.528.

16. On September 20, 1973, KBI, by notice in writing of that date, under oath, sent notice to the State in the manner and style and stating the facts required by ORS §279.528. Said notice was duly received in due course of the mail and duly filed by the State.

17. By the terms of the same notice dated September 20, 1973, addressed to DW, to General Insurance, and to Travelers, KBI demanded of each of them payment of the above alleged sum. Said demands were delivered by hand to authorized agents of Travelers and General Insurance on the same date and were also sent to each of them and to DW by mail, and were received in due course of the mail.

18. More than six months have elapsed since General Insurance and Travelers received said demand for payment, but the same remains due, owing, and unpaid.

19. KBI has been required to employ and incur the expense of legal counsel in order to enforce its rights by the commencement and prosecution of this action. Said employment and the expense thereof are reasonable. By the terms of ORS §743.144, KBI has a right to the recovery of reasonable attorney fees in this action from General Insurance and Travelers.

20. Plaintiff demands trial by jury.

WHEREFORE, Plaintiff, Klaas Bros., Inc., demands judgment as follows:

1. Against all defendants in the principal sum of $101,647.97, together with interest thereon at the legal rate from and after February 14, 1973;

2. Against defendants, The Travelers Indemnity Company and General Insurance Company of America, for reasonable attorney fees;

3. Against all defendants for such other and furuther relief as may be proper.

SOUTHER, SPAULDING, KINSEY,
WILLIAMSON & SCHWABE

BY: /s/ Rockne Gill
ROCKNE GILL

Of Attorneys for Plaintiff

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE COPY OF THE ORIGINAL THEREOF.

Rockne Gill

Attorneys for Plaintiff

PORTLAND, OREGON 97204
TELEPHONE 222-9901

7310

November 23, 1973

TO G. L. Green, Division Engineer
Federal Highway Administration

FROM L. H. Young
Office Engineer

Federal-aid Project
No. I-405-8(22)384

SUBJECT Request Change Order Approval

Contract 7310 State Force Order No. 21

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This order covers the cost of permanent striping throughout the project. The contractor has completed his work and left the project. The State has the necessary special striping equipment and trained personnel to perform the work most economically.

Federal participation will be based on the agreed price for striping. The estimated cost of this work is $1,279.10 with Federal participation of $1,151.19. Reimbursement on an agreed unit priced basis is requested.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer October 12, 1973.

Your approval as of October 12, 1973 is requested.

Attach.

BMW:dg

7310

November 23, 1973

TO G. L. Green, Division Engineer
Federal Highway Administration

FROM L. H. Young
Office Engineer

Federal-aid Project
No. I-405-8(22)304

SUBJECT Request Change Order Approval

Contract 7310, State Force Order No. 20

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This order covers the installation of traffic lane buttons throughout project. All work to be paid for under this order will be performed by the Traffic Marking Specialist Co., a company who has contracted with the State Maintenance for this type work throughout the state. As this work was not included as part of the contract and the contractor has completed his work it is in the public interest to have this work performed by the maintenance contractor.

Copies of the Engineer's letter of explanation are attached.

The estimated cost of this work is $1,048.80 with federal participation in the amount of $943.92. Reimbursement on a unit price basis is requested. This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer October 12, 1973.

Your approval as of October 12, 1973 is requested.

Attach.

BMW:lsk

7310

November 23, 1973

Schwartz & Dreifus
Attorneys at Law
5670 Wilshire Boulevard
Los Angeles, California 90036

Attention: Arnold M. Schwartz

Gentlemen:

This is in reply to your letter of November 19, 1973, concerning the Donald M. Drake Company and Willamette-Western Corporation Contracts in Multnomah County.

The completion and acceptance dates are as follows:

Contract No. 7310
Unit A
Completed April 27, 1973
Accepted July 5, 1973

Contract No. 7311
Unit B
Completed May 25, 1973
Accepted July 5, 1973

Contract No. 7312
Unit C
Completed November 28, 1972
Accepted February 2, 1973

Very truly yours,

C. W. Head, Manager
ADMINISTRATIVE SERVICES

CWH:ks

SCHWARTZ & DREIFUS
ATTORNEYS AT LAW

ARNOLD M. SCHWARTZ
JORDAN A. DREIFUS

8670 WILSHIRE BOULEVARD
LOS ANGELES, CALIFORNIA 90036
(213) 937-5311

CABLE ADDRESS: SCHWARD

November 19, 1973

Mr. Cecil W. Head, Manager
Administrative Services
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

RE: East Fremont Interchange
Units A, B, and C

Dear Mr. Head:

This letter is written to you in confirmation of information given to me by telephone from your office on Friday, November 16, 1973. At that time, I placed a long distance call to your office, I found that you were away from the office, and in your absence I was given the following information:

Contract No. 7310 was completed and the date of completion is July 5, 1973.

Contract No. 7311 was also completed on July 5, 1973 and that said date is the date of actual completion of work.

Contract No. 7312 was completed February 2, 1973.

We will be relying on these dates in connection with our representation of one of the subcontractors of Drake-Willamette. Your records indicate that on September 28, 1973, you wrote to Klaas Bros., Inc. and advised them of the fact that the prime contractor was bonded by The Travellers Indemnity Company and by General Insurance Company of America.

In order that our record in this office, on behalf of Klaas Bros., Inc., is complete, we shall appreciate your issuing the appropriate certificate reflecting the effective completion dates on the three contracts. Please forward such a certificate directly to this office. If there is a charge

for the certificate, please issue the certificate and your bill at the same time and forward them together. We will remit by return mail.

Your cooperation is much appreciated.

Yours very truly,

ARNOLD M. SCHWARTZ

AMS:sb

cc: Frank Klaas

RECEIVED
NOV 21 1973
HIGHWAY
ADMINISTRATIVE SERVICES

#7310

LEE JOHNSON
ATTORNEY GENERAL

RECEIVED
STATE HWY ENGR
NOV 13 '73
REFER TO
FOR
Info | Inves | R/D | D/R | Sup | Act | File

STATE OF OREGON
DEPARTMENT OF JUSTICE
PORTLAND, OREGON 97201

November 9, 1973

NOTED
A. E. JOHNSON

Pittsburgh Testing Laboratory
Portland Office
611 S.E. Harrison
Portland, Oregon

Attention: Donald Scott, Manager

Re: (1) Inspection Contract of September 30, 1969
Involving the West Fremont Interchange
(2) Inspection Contract of December 23, 1969
Involving the East Fremont Interchange

Gentlemen:

This is to advise you that there may be potential liability of your company concerning its work done in inspecting the application of the zinc primer coating of steel girders at Canron, Ltd. in Vancouver, British Columbia.

The impact claims of Drake-Willamette and Anderson-Hannan joint ventures and Canron, Ltd. are being evaluated with the purpose of avoiding protracted litigation over the Fremont Bridge construction. Therefore, please forward this letter to your counsel or insurer and have them contact me at their earliest convenience so that they may be appraised of your company's potential liability and participate in settlement negotiations.

This letter is also to advise you that the State of Oregon, Highway Division, hereby makes formal demand upon you to make available for our inspection and copying all records pertaining to your inspection of the process at Canron, Ltd. pursuant to Section III, Paragraph 5 of your contracts as noted above.

cy Coulter
Ferguson
Hunt
Bothman
Cunningham
11-13-73

Since it is necessary that you become involved and appraised of this situation as soon as possible, I would appreciate your earliest attention to this matter.

Sincerely,

JOHN R. CLOUGH
Assistant Attorney General

pjw
bcc: Walt Barrie
Al Johnson
Fred Klaboe
Ed Hardt

E 7310

October 10, 1973

Drake-Willamette
1740 NW Flanders Street
Portland, OR 97209

Gentlemen:

Your impact claim for $2,289,019.65 submitted on the East Fremont Interchange Project, contracts 7310, 7311, and 7312 has been analyzed and reviewed. This review indicates that there is no basis in fact for the claim and it is hereby rejected.

Very truly yours,

F. B. Klaboe
Administrator and
State Highway Engineer

ELH:sh kmb
bc: A. E. Johnson
Walt Hart
R. N. Bothman
Bob Shotwell
C. T. Keasey
Jack Sollis
Jack Clough, Assistant Attorney General
Department of Justice

CONTRACTORS
DEVELOPERS

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
INCORPORATED JANUARY 2, 1973

TELEPHONE (503) 226-3991

October 9, 1973

Mr. F.B. Klaboe, Administrator
and State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Reference: East Fremont Interchange Impact Claim

Dear Mr. Klaboe:

On September 12, 1973, you advised us by letter that your review of subject claim was taking longer than you had anticipated, but that it would be concluded in two or three weeks.

We are concerned with the rate of progress of your review. In addition, through discussion with our subcontractor's counsel, Mr. Richard Franzke, it now seems your investigation could be proceeding in a new direction.

Since you have not responded further, we request a meeting in order for us to be fully appraised of the current status of our claim.

Because of his involvement relative to that part of our claim dealing with paint problems, we expect to have Canron's attorney, Mr. Franzke, in attendance if such a meeting can be arranged. We also anticipate inviting our own attorney, Mr. Hiefield, as well as Mr. Kobin, who represents Willamette-Western, to join us. On that basis, we naturally expect your own cousel will be present.

In considering commitments of those persons mentioned above, either Thursday or Friday, October 18 or 19, would be convenient. I will appreciate your advising me if your own schedule will permit a meeting on either of the above dates.

RECEIVED
STATE HWY ENGR
OCT 10'73
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Very truly yours,

DONALD M. DRAKE COMPANY

R. E. Grant, Vice President
Construction

REG:br

aeg

7310

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97206

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

October 8, 1973

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Attn: C. W. Head, Mgr. - Administration Services

Ref: E. Fremont Interchange
O.S.H.D. Contracts No. 7310, 7311 & 7312
Klaas Bros., Inc. Claim of September 20, 1973

Gentlemen:

There appears to be several points which need clarification regarding the subject claim by Klaas Bros., Inc.

The $133,912.78 consists of the following items:

1.	Zinc Primer portion of major claim pending before the Oregon State Highway at this time.	$ 97,138.50
2.	Latex paint repair work in Contracts No. 7310 & 7311.	$ 14,733.75
3.	Unpaid open account work for Drake-Willamette Joint Venturer.	$ 4,509.47
4.	Retention unpaid.	$ 17,529.06
	Total	$133,910.78

The solution to Item 1, according to O.S.H.D. letter of September 12, 1973, was to have been handed down by the O.S.H.D. not later than September 26, 1973. Answer is still pending from the O.S.H.D. The latex paint repair claim was rejected by the O.S.H.D. by letter of September 12, 1973. Klaas Bros. Inc., was so notified. Frank Klaas requested an appeal to this problem and permission to appear before the Claims Review Board was requested on October 1, 1973. An answer to this appeal request has not yet been received.

Item 3, unpaid open account work for Drake Willamette Joint Venturer, has not been settled. The various items comprising this amount were not paid because they were beyond the scope of our contract with Klaas Bros., Inc. They are claiming costs which are fully deniable under that contract.

Russ gave a copy to Kloboe

Final Rentention has not been paid for two reasons, to wit:

1. There is a pending claim against Klaas Bros., Inc. by Mr. Wayne Kensington of 4910 S. W. 160th Avenue, Beaverton, Oregon 97005. This claim requests removal of latex paint from his 1969 - ½ ton International Pickup truck, Oregon License No. CCQ475, and repair to paint surfaces.

2. Klaas Bros., Inc. refuses to sign a lien waiver form. Definite procedures have been spelled out to Klaas Bros., Inc., whereby they may utilize our lien waiver forms.

Resolution of these 2 items by Klaas Bros. will permit immediate release of the retention amount.

At no time prior to receipt of the Klaas Bros., Inc. letter of September 20, 1973 to the Oregon State Highway Commission, has accrued interest been intimated or mentioned.

Please also note that there is a $2.00 error in the summation of figures contained in the aforesaid Klaas Bros., Inc. letter.

As you will also note, the bulk of the solution to the Klaas Bros. claim rests with the Oregon State Highway Department.

Please do all in your powers to expedite their resolutions of the zinc primer and latex repair portions of this claim.

Very truly yours,

DRAKE-WILLAMETTE JOINT VENTURERS

John R. Gray
Project Manager

JRG:db

NOTED
C. W. HEAD

7310

FORM E-50

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE October 2, 1973

TO Mr. A. E. Johnson
Deputy State Highway Engineer

FROM Edward L. Hardt
Construction Field Engineer

SUBJECT East Fremont Interchange
Contracts 7310, 7311
Contractor's Impact Claim

Mr. Robert Shotwell has completed his review of Drake-Willamette's "impact" claim which they have submitted on the East Fremont Interchange. If you could schedule a time when Mr. Klaboe (I presume he would want to attend) and yourself could be available for a couple of hours, we will have Bob come down and explain his analysis.

ELH/ag

cc H. S. Coulter
R. N. Bothman
R. Shotwell
J. Howard
W. J. Hart

NOTED
A. E. JOHNSON

RECEIVED
STATE HWY ENGR
OCT 4 73
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Mem. 8th 1:30
Small Conf. Room

15 1:30
16 Out

7310

FORM E-50

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE October 2, 1973

TO Mr. A. E. Johnson
Deputy State Highway Engineer

FROM Edward L. Hardt
Construction Field Engineer

SUBJECT Zinc Primer Failures
East and West Fremont Interchanges

One of the points which Canron raised in their presentation of the failure of the inorganic zinc primer on the Fremont approaches was the possibility that rust stain running off the top flanges of the girders may have contributed to the breakdown on the primer itself. We have looked at the breakdown with this in mind and have never been able to make a correlation, that is we have never found that the primer that had stain was anymore deteriorated than that without.

In order to put this item to rest completely, if that is possible, we would propose making a field test this coming winter of rust stain on Rust-Ban 193 Inorganic Zinc. We would do this by painting sections of plate, inclining them in the same fashion as the webs on the trapezoidal girders and then allowing a rusty plate to drain on them to simulate the actual girder condition. By means of paint thickness readings, we hope to be able to determine whether the rust staining could have had any effect on the primer failure on the projects.

If you concur in this experimentation, please advise and we will proceed.

ELH/ag

cc J. Howard
R. Shotwell
H. D. Mandrell
J. Clough
A. C. Harwood

cy. Ed Hardt
Hunter
Coulter
Bothman

RECEIVED
STATE HWY ENGR
OCT 5 '73
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

RECEIVED
DEPUTY STATE HIGHWAY ENGINEER
Date 10-8-73

7310

4832

FILED
OCT - 1 1973
CLAY MYERS
SECRETARY OF STATE

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

September 28, 1973

NOTED ON CARD
10-2-73

Klaas Bros., Inc.
2012 Hyperion Avenue
Los Angeles, California 90027

Gentlemen:

This is to acknowledge your letter of September 20 informing us that Willamette-Western Constructors, a joint venture, owes you $133,912.78 plus interest for work, labor, services and materials.

From the description included in your letter, this appears to be in reference to Willamette River Constructors, Contracts Nos. 7310, 7311 and 7312, for work on the East Fremont Interchange, Units A, B, and C, Section of the Stadium Freeway in Multnomah County.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bond on these contracts. We will advise them of the receipt of your claim and we will also forward it to the Secretary of State for filing.

Please advise this office when your claim has been satisfied.

Very truly yours,

ORIGINAL SIGNED
D. W. HEAD

C. W. Head, Manager
ADMINISTRATIVE SERVICES

cc Willamette River Constructors
The Travelers Indemnity Company
General Insurance Company of America
Hon. Clay Myers - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

...FILED
...W. HEAD

A DIVISION OF THE DEPARTMENT OF TRANSPORTATION

KLAAS BROS. INC.
PAINTING CONTRACTORS

2012 HYPERION AVENUE
LOS ANGELES, CALIFORNIA 90027
661-1158

September 20, 1973

Oregon State Highway Commission
Salem, Oregon

Donald M. Drake Company, an Oregon Corporation, and
Willamette-Western Corporation, an Oregon Corporation,
in a Joint Venture known as Willamette-Western Constructors
1740 North West Flanders
Portland, Oregon 97209

General Insurance Company of America
Safeco Plaza
Seattle, Washington 98185
Attention: Surety Claims Manager
D. H. Purcell

The Travelers Indemnity Company
1 Tower Square
Hartford, Connecticut 06115

Re: State Highway Contracts Nos. 7310, 7311 and 7312
Unpaid Claims of Klaas Bros., Inc. as Painting Contractor

Gentlemen:

Notice is hereby given to you, and each of you, that the undersigned, Klaas Bros., Inc., claims for compensation for work, labor, materials, and services performed, furnished and supplied by it in performing the subcontract issued to it for painting and coating work under each of the above-noted prime contracts between the State Highway Commission and Donald M. Drake Company and Willamette-Western Corporation, a Joint Venture known as Willamette River Constructors and which joint venture issued the subcontract to the undersigned.

There is now due, owing and unpaid to the undersigned the sum of $133,912.78, together with accrued interest thereon. That sum is for, among other things, retention funds, unpaid extra work performed for the joint venture at its request, wage escalation, overtime compensation, mobilization compensation, subsistence expense, supervision expense, price differentials on materials, equipment costs, zinc repairs, force-account work, damages to cars due to concrete work, and

concrete painting repairs. All the foregoing is for work, labor, services and materials performed, furnished and supplied at the request of Donald M. Drake Company, an Oregon corporation, and Willamette-Western Corporation, an Oregon corporation, in Joint Venture under the firm of Willamette River Constructors, for the performance of and used in that Joint Venture's work on the prime contracts mentioned above for construction of the East Fremont Bridge Interchange and related improvements at Portland, Oregon.

Klaas Bros., Inc., demands immediate payment of that sum of $133,912.78 from each and all of you.

Very truly yours,

KLAAS BROS., INC.

By Frank A. Klaas
Frank A. Klaas, President

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

I, Frank A. Klaas, hereby verify that all of the matters stated in the above letter are true.

Frank A. Klaas

Subscribed and sworn to this 20th day of September, 1973, before me a notary public in and for said State and County.

Arnold M. Schwartz

OFFICIAL SEAL
ARNOLD M. SCHWARTZ
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY
My Commission Expires July 30, 1975

cc: The Travelers Indemnity Company
707 S.W. Washington Street
Portland, Oregon 97205

The Travelers Indemnity Company
3600 Wilshire Boulevard
Los Angeles, California

General Insurance Co. of America
1500 S.W. First Avenue
Portland, Oregon 97201

General Insurance Co. of Amer.
5455 Wilshire Boulevard
Suite 1806
Los Angeles, California 90036

RECEIVED
SEP 26 1973
HIGHWAY
ADMINISTRATIVE SERVICES

#7310

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE September 13, 1973

TO Memo to the File

ORIGINAL SIGNED
EDWARD L. HARDT

FROM Edward L. Hardt
Construction Field Engineer (Bridge)

SUBJECT East and West Fremont Interchanges

RECEIVED
STATE HWY ENGR
SEP 17 '73
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

On September 11 a meeting was held in the small conference room from 8:30 a.m. to 11:30 a.m. to discuss the inorganic zinc paint failure on the Fremont approaches. Listed below are those who attended.

J. F. Koehler, Exxon Chemicals, Florham Park, New Jersey
J. Owen, Exxon Chemicals, Los Gatos, California
*Jack L. Sollis, Asst. Attorney General, Salem
*Jack Clough, Asst. Attorney General, Salem
*A. E. Johnson, Deputy Highway Engr., Salem
*H. S. Coulter, Asst. Hwy. Engr., Salem
Ed Hardt, Construction Field Engr., Salem
*John Howard, Resident Engr., Portland
*Dean Mandrell, Materials, Salem
*Walter J. Hart, Bridge Engineer, Salem
*R. E. Shotwell, Resident Engr., Portland
Charles Lobaugh, Asst. Res. Engr., Portland
C. T. Christianson, Area Engr., FHWA, Salem
R. W. Pillsbury, FHWA, Salem
*H. A. Schell, FHWA, Salem

* Received a copy of this memo

The purpose of the meeting was for Exxon Paint Co.'s representatives, principally Frank Koehler, to discuss with us their findings and feelings for the cause of the primer failure on the Fremont approaches. I had met earlier with Mr. Koehler and at that time he had said that Exxon was going to duplicate in their laboratory Portland's environment and perform tests to determine what the effect of this environment would be on Rust-Ban 193 paint.

Mr. Koehler opened the discussion by telling the group that his laboratory did not make the above-described test because they felt that the pollution levels which I had described to them earlier out of Canron's report to us were so

low that there would be no purpose in duplicating these for a short-term lab test. He emphasized the point that he could not see how the Portland environment could in any way create the problem which we have had.

He passed around color photographs of ship interiors where their paint had been used successfully for a number of years and he mentioned that they had excellent results with the Alaska pipeline which had been painted with Rust-Ban 193. This is contrary to what we had been told by Canron and when queried about this, Mr. Keohler hung fast to his statement that there was nothing wrong with Exxon's paint on the Alaska pipeline. Attached to this memo is a page which Mr. Koehler passed around showing "major applications of Rust-Ban 193".

We talked considerably about the effect of acid cure and Mr. Koehler said that if the paint film had lost its gloss before the acid cure was applied, it was not likely that an excess of acid would cause a future deterioration of the paint film. This is contrary to what Saroyan had reported, that is, that excessive acid cure would cause a rapid primer breakdown.

Mr. Koehler listed three reasons which in his opinion could cause the kind of failure that we had experienced. 1) The anchor profile protrudes through the film (low film thickness). 2) The paint is contaminated with either shot residue which has remained on the steel after blasting or air-carried steel dust which has settled on the wet film. 3) The application of a dry film of paint creating a dry, dusty, porous surface.

I asked Mr. Koehler if he felt there was any merit in the contractor's claim that the rust stain deposited on the primer may have caused a breakdown of the primer itself. He said that he did not believe that this could have contributed to the problem. I also asked about the contractor's contention that if he had been allowed to apply a seal coat over the primer the problem would have been eliminated or at least lessened. Mr. Koehler said that if the primer had been applied and cured properly there would be no need to apply a seal—in our case, this would only have concealed a problem which would break out later. He agreed that my analogy that the seal coat was like a bandage, only concealing a problem, not curing it, was accurate.

The entire vein of Mr. Koehler's discussion with us was that the problem that we had experienced could not be attributed to the Portland environment so that more than likely the explanation lay in the procedures that were used in the painting plant. He said that his experience has been that in 99 out of 100 cases, problems with the inorganic zinc primer are traced back to application problems. He mentioned several times that this is a fine product if used properly but is very difficult to apply by people who are not used to working with it.

The meeting concluded with Mr. Koehler offering to give us any assistance that we might ask for.

ELH:dh

cc F. B. Klaboe

EXXON CHEMICAL COMPANY U.S.A.

P O Box 201, Florham Park, New Jersey 07932

SPECIALTIES DEPARTMENT
INDUSTRIAL COATINGS DIVISION
J FRANKLIN KOEHLER
Manager-Marine and Export Sales

EXXON CHEMICALS

June 21, 1973

MAJOR APPLICATIONS OF RUST-BAN 193

A) 225 miles of the 48-inch diameter Alaska Pipeline was coated (exterior) with RUST-BAN 193 - and is giving satisfactory performance after over three years of service.

B) RUST-BAN 193 is extensively used in Japan as a plate primer for Japanese marine newconstruction projects. In addition the product has been widely used for protection of exterior surfaces of storage tanks throughout Southeast Asia and Australia.

C) RUST-BAN 193 is used for touch-up coating on all Esso VLCC construction in Europe...particularly in the cargo compartments where introduction of subsequent blasting operations would cause a severe contamination problem. In addition a number of large storage tanks in a French refinery were coated with this material about three years ago.

7310

5

September 12, 1973

Mr. R. E. Grant
Vice President - Construction
Donald M. Drake Company
1740 N. W. Flanders Street
Portland, OR 97209

Dear Mr. Grant:

Due to the complexity of your impact claim submitted for the East Fremont Interchange, our review has taken longer than anticipated.

We expect to complete this review in the next two weeks, and you will hear from us shortly thereafter.

Very truly yours,

F. B. Klaboe
Administrater and
State Highway Engineer

bc A. E. Johnson
W. J. Hart /w/att.
A. C. Harwood /w/ att.
Robert Shotwell /w/att.

ELH:dh ms

CONTRACTORS
DEVELOPERS

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
TELEPHONE (503) 226-3991

August 30, 1973

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Attention: Mr. F. B. Klaboe, State Highway Engineer

Gentlemen:

On July 6, 1973, you advised us of your receipt of our impact claim for the East Fremont Interchange project, and that you expected to complete your review of the claim in approximately one month.

We will appreciate being advised as soon as possible the results of your review as well as your intentions relative to resolution of the claim.

NOTED
A. E. JOHNSON

Yours very truly,

DONALD M. DRAKE COMPANY

R. E. Grant

R. E. Grant
Vice President-Construction

REG:cm

RECEIVED
STATE HWY ENGR
AUG 31 73
REFER TO
Ed Wandt
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Maps

7310

FORM E-50

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE August 20, 1973

TO Mr. V. E. Skoog
Controller

Attn. Mr. R. J. Hacek

FROM R. J. Wright
Bridge Office Engineer

SUBJECT Consultant Agreement
Fremont Bridge Approaches
Contracts 7214, 7310, 7311, 7312 and 7623

The consulting firm of Howard, Needles, Tammen & Bergendoff, has completed the engineering services for the design of the East and West Fremont Interchange structures. Their final invoice is attached. It has been checked and is hereby approved for payment.

RJW:dh
Attachment

cc A. E. Johnson
E. S. Hunter
R. N. Bothman

NOTED
E. S. HUNTER

RECEIVED
AUG 21 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

7310

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: July 11, 1973

In reply refer to: 10-35.6

#1310

NOTED
H. S. COULTER

SUBJECT: Oregon Project I-405-8(22)303
East Fremont Interchange

FROM : G. L. Green, Division Engineer

TO : Mr. F. B. Klaboe, Administrator &
State Highway Engineer
Salem, Oregon

Mr. Coulter's June 28, 1973 memorandum states that the paint used on the East Fremont Interchange may be poor and fail in the near future. The paint used was one of two allowed in the project specifications but is not as suitable as the other paint.

We recognize the problem and consider the project acceptably complete. If the paint does fail in a reasonable time, we will then consider approving Federal participation in repainting the concrete surfaces.

G. L. Green

RECEIVED
STATE HWY ENGR
JUL 13 '73
REFER TO
Coulter
FOR
Info | Immed | R/D | D/R | Ref | Act | File

orig. 7-13-73
cy Hand Batterman Cunningham adj

7-13-73 cy Kenney

7310

July 9, 1973

The Travelers Indemnity Company
Fidelity & Surety Department
700 Main Street
Hartford, Connecticut 06106

General Insurance Co. of America
Portland Service Office
1500 S. W. First
Portland, Oregon 97201

Gentlemen:

Contract No. 7310 awarded to Willamette River Constructors, Donald M. Drake Co. and Willamette-Western Corporation for work on the East Fremont Interchange (Unit A) Section of the Stadium Freeway in Multnomah County was completed on April 27, 1973, and accepted by the Highway Commission July 5, 1973.

Final payment will be released to the contractor as soon as payment processing can be completed, but not before July 14, 1973.

You have been previously notified of a claim filed against the contract.

Very truly yours,

G. W. Read, Secretary
OREGON STATE HIGHWAY COMMISSION

tm
cc Willamette River Constructors,
Donald M. Drake Company and
Willamette-Western Corporation
1740 N. W. Flanders Street
Portland, Oregon 97209
bc C. T. Keasey
Walt Hart
V. E. Skoog
Attn: Dick Hacek
L. W. Rulien

7310

July 6, 1973

Drake-Willamette, Joint Venturers
1740 NW Flanders
Portland, OR 97209

Gentlemen:

This will acknowledge receipt of your impact claim for the East Fremont Interchange, Contract Nos. 7310, 7311, and 7312, which was received on June 7, 1973.

The claim is presently being reviewed. We expect our preliminary review will be completed in about a month, and we will advise you of our findings.

Very truly yours,

F. B. Klaboe
State Highway Engineer

bc A. E. Johnson
M. S. Coulter
Walter J. Hart
C. T. Keasey
Jack Sollis
R. N. Bothman
Robert Shotwell

ELH:fw ms

7310

June 28, 1973

TO Glen L. Green, Division Engineer
Federal Highway Administration

FROM
H. S. Coulter
Assistant State Highway Engineer

SUBJECT East Fremont Interchange
Contract Nos. 7310, 7311 and 7312

Latex paint applied to the concrete surfaces of the East Fremont Interchange has shown a tendency to peel. This was first noticed after the severe freeze in December 1972.

An investigation has revealed that the principal reason for the paint failure was the use of polyvinyl acetate paint rather than acrylic emulsion paint. Project specifications allow the use of either paint by the contractor. The polyvinyl acetate paint does not adhere as well to smooth concrete as acrylic emulsion paint and it has inferior elastic qualities.

Also, a film of cement dust was found under the peeled paint, which indicated the surface may have been inadequately wet down prior to application of the paint. For this reason, we have required the contractor to repaint the peeled areas at his expense. It is anticipated that the contractor will file a claim for the cost of repainting because our specifications allowed the use of either paint. This is a valid point and we may have trouble resisting a claim. With the repainting done, the contractor has complied with the specifications and we have accepted the project.

Through experience, local paint suppliers have found that acrylic paint is superior to polyvinyl acetate paint. This may be the reason similar problems have not occurred before with locally supplied paint. The paint supplier for this project was Enjay Chemical Corporation of Houston, Texas, and did not have the benefit of the local knowledge.

Polyvinyl acetate paint has since been removed from our specifications. This project was let under the 1964 edition of the Standard Specifications, and the specification for latex paint consisted of three mimeographed pages obtained from the Department of Finance and Administration.

It is expected that the painting as repaired and accepted will remain on the concrete surface. However, there is the possibility of large-scale failure of the latex paint in the future. If this occurs, we will program a contract for repainting and will request federal participation at that time. It is hoped this procedure meets with your approval.

ELH:fw/HSC:ia

bc F. B. Klaboe
A. E. Johnson
C. T. Keasey
W. J. Hart
R. N. Bothman
Robert Shotwell

7310

June 25, 1973

EAST FREMONT INTERCHANGE
CONTRACTS 7310, 7311, 7312

DISCUSSION OF CONTRACTOR'S "IMPACT CLAIM"

INTRODUCTION

The East Fremont contractor, Drake-Willamette, submitted to the OSHD on June 6, 1973, an "Impact Claim" amounting to $2,289,019.65. This claim has been given a preliminary review by the Metro Office, Resident Engineer Robert Shotwell and Ed Hardt. Following is an evaluation of this review.

DISCUSSION

The contractor has identified six "stumbling blocks" to normal construction progress that affected the East Fremont work. These are:

1. Structural steel delivery
2. Structural steel erection
3. Viny paint bubbling
4. Zinc primer deterioration
5. Ring girder revisions
6. Expansion joint revisions

He has assigned responsibility for these factors as follows: Items 1 and 2, contractor; Items 3, 4, 5 and 6, OSHD. He then goes on to identify portions of the work which were affected, both in magnitude and duration by these factors (See Exhibits A, B, C and D). This approach of calculating relative impacts of delay problems by multiplying the number of factors times the months of delay is dropped at this point and was apparently developed only to set the stage for what follows.

The contractor next calculates dollar amounts of his claim. This is broken into three parts: (1) Loss of Productivity; (2) General Condition Expense; and (3) Sub-contractor's Claims.

Under Loss of Productivity, the contractor shows, by means of graphs, his "planned labor performance" and his "actual labor performance". The difference between these two then is the "loss of productivity". Presumably, the planned labor performance factors came off of his bidding calculations and the actual labor performance factors came off his job cost records. The loss in productivity in units of work per man hour divided into the total units of work then yields the total loss of productivity in man hours. This multiplied by the labor cost gives the total cost of the loss of productivity. By referring to graphs 1 - 10 and Table 1, the mechanics of this calculation can be followed. The total of all these costs is $704,089.97.

The next item, "General Condition Expense", is shown in Table II. The contractor appears to be saying that since the job was delayed about one year (original

completion date October 20, 1971, final completion date late fall 1972) that all third year fixed expenses are claim items. There is no breakdown of these costs other than Table II so it is difficult to completely understand them. In general, they appear to be costs attributable to holding the project over into the third year. Included in Table II is an item of $173,283.69 for zinc primer repairs. This is the cost of repairing rust primer paid to the painting subcontractor.

The subcontractor's claims are presented in Table III. Canron is in for $233,971.90. This is composed of the cost of their investigation, interest on retainage ($98,598.00) and devaluation of retainage. Gilmore Steel Company, reinforcing bar subcontractors, are in for $156,020 based on delay and rescheduling of work costs. Their cost is calculated similarly to Drake-Willamette's using the "planned labor performance"approach. Klass Bros., painting subcontractor, is in for $93,316.86. Most of this is "third year delay costs".

ANALYSIS

The contractor has identified six "stumbling blocks"to normal construction progress. He has discarded the first two, which are his responsibility, as having no negative impact on the job progress. He has assumed that the other four, which he assigns to the OSHD, namely (1) vinyl paint bubbling, (2) primer deterioration, (3) ring girder revisions, and (4) expansion joint revisions, delayed the project into a third construction year. He contends this delay caused labor inefficiencies as well as extension of fixed costs.

The calculation of a claim by comparing the actual cost of the work with the anticipated cost prepared at the time of bid does not seem to be a valid basis. The proper approach would be to determine the difference in cost between the work as actually done and the cost of the work had not the "stumbling blocks"been present. For this reason, it is believed that the contractor has not presented this portion of the claim in an acceptable manner.

The second part of the claim is essentially overhead and fixed costs resulting from job delays. The OSHD has admitted responsibility for delays due to ring girder and expansion joint revisions by granting 210 workdays to the contractor based on these changes. Price Agreements and work orders totaling about $153,000 have been executed to compensate the contractor for the cost of these changes, but in his price quotes he reserved the right to claim "consequential costs"for the changes. A determination needs to be made as to whether these secondary costs are the basis of a valid claim.

The third part of the claim deals with subcontractors Canron, Gilmore and Klass. Canron's claim hinges on the State's analysis of the cause of the zinc primer breakdown. This analysis is not complete, but a preliminary evaluation indicates the problem originated with Canron's work which would negate their claim. Gilmore's

claim follows Drake-Willamette's in that it is based on comparison at what actually happened compared to what the bidding estimator thought would happen. The validity of this approach is in doubt. Klass' claim is essentially that of third year fixed costs paralleling Drake-Willamette's approach to that phase.

CONCLUSION

To approach a claim based on impact of changes by comparing actual performance to anticipated performance at time of bid preparation would not seem to be equitable. The impact of the change is paramount and that can only be ascertained by comparing the work as done with the work as would have been done without the change. For this reason, we have trouble accepting the contractor's approach to this portion of the claim.

As to secondary delay costs (overhead, fixed costs, etc.), a determination will have to be made as to their validity. The 1970 Standard Specifications are quite clear on this point (they are not allowed) but we have not found anything in the 1964 specs (applicable to this project) that applies.

Portland, Oregon 97227
June 27, 1973

RE: Impact Claim
East Fremont Interchange Units A,B,C
Contract No's. 7310, 7311, 7312

Memo to the File

This memo might serve to clarify the following paragraphs which refer to the vinyl bubbling problem;

Page 4 Paragraph A.1 (10 month delay)

Page 4 Paragraph B.1 (days of delay)

Page 5 Paragraph C.2 (shutdown)

The vinyl could have been applied intermittently, (as the spans were completed on Unit EB-1) starting about the 12th of September 1970. There was still a good chance of permissable painting weather at this time.

The paint subcontractor did not arrive on the project until Sept. 22 nd. He did not choose to work Sept 26 (Sat.), Sept. 27 (Sun.), Oct. 3 (Sat.), Oct 4 (Sun.), and Oct. 11 (Sun), although painting would have been allowed under the specifications.

On Nov. the 6th. we issued a shutdown order which was lifted Nov. 23 rd. During this period there was only one "paint day" (Nov. the 14th., a Saturday).

Upon resumption of work the painters still did not work Nov. 28 th (SAT.), a "paint day" which could have been a "make up day" for the 14th.

With the data available to us it appears the Shutdown order was not the cause of any delays.

Robert E. Shotwell
Resident Bridge Engineer

BY:

Charles Lobaugh

CAL:rer

MAJOR IMPACT ON FACTORS CONSIDERED YES OR NO	MAJOR PROBLEMS TO BE CONSIDERED: STRUCTURAL STEEL DELIVERY	STRUCTURAL STEEL ERECTION	VINYL PAINT BUBBLING	INORGANIC ZINC DETER. & REPAIR	RING GIRDER REVISIONS	EXPANSION JOINT NOISE REVISION	EXPANSION JOINT DEPTH REVISION
STRUCT. STEEL DELIVERY		NO	NO	YES	YES	NO	NO
STRUCT. STEEL ERECTION	NO		YES	YES	YES	YES	YES
VINYL PAINT APPLICATION	NO	NO		YES	YES	YES	YES
INORGANIC ZINC DETERIORATION & REPAIRS	NO	NO	YES		YES	YES	YES
RING GIRDER REVISIONS	NO	NO	NO	NO		NO	NO
EXPANSION JOINT NOISE REVISION	NO	NO	NO	NO	NO		YES
EXPANSION JOINT DECK DEPTH REVISION	NO	NO	NO	NO	NO	NO	NO
CONCRETE PIER FORMING & PLACEMENT	NO	NO	YES	NO	NO	NO	
CONCRETE DECK FORMING & PLACEMENT AT STEEL	NO	NO	YES	YES	YES	YES	YES
CONCRETE PARAPET FORMS & PLACEMENT AT STEEL	NO	NO	YES	YES	YES	YES	YES
DID IT CAUSE THE "WEDGE HOPPING EFFECT"	NO	NO	YES	YES	YES	NO	YES
DID IT SHIFT WORK PROCESS INTO BAD WEATHER SEASON	NO	NO	YES	YES	YES	YES	YES
DID IT AFFECT JOB CREW MORALE & PRODUCTIVITY	NO	NO	YES	YES	YES	YES	YES
TALLY: NO = 0 PTS. YES = 1 PT.	0	0	8	8	9	7	9
NO. OF MONTHS OF IMPACT UNTIL SOLVED = "X"	1	0	10	21.5	16.5	12	6
TOTAL IMPACT = TALLY TIMES "X"	0	0	80.0	172.0	148.5	84.0	54.0

EXHIBIT A: IMPACT STATEMENT

EXHIBITS A&B

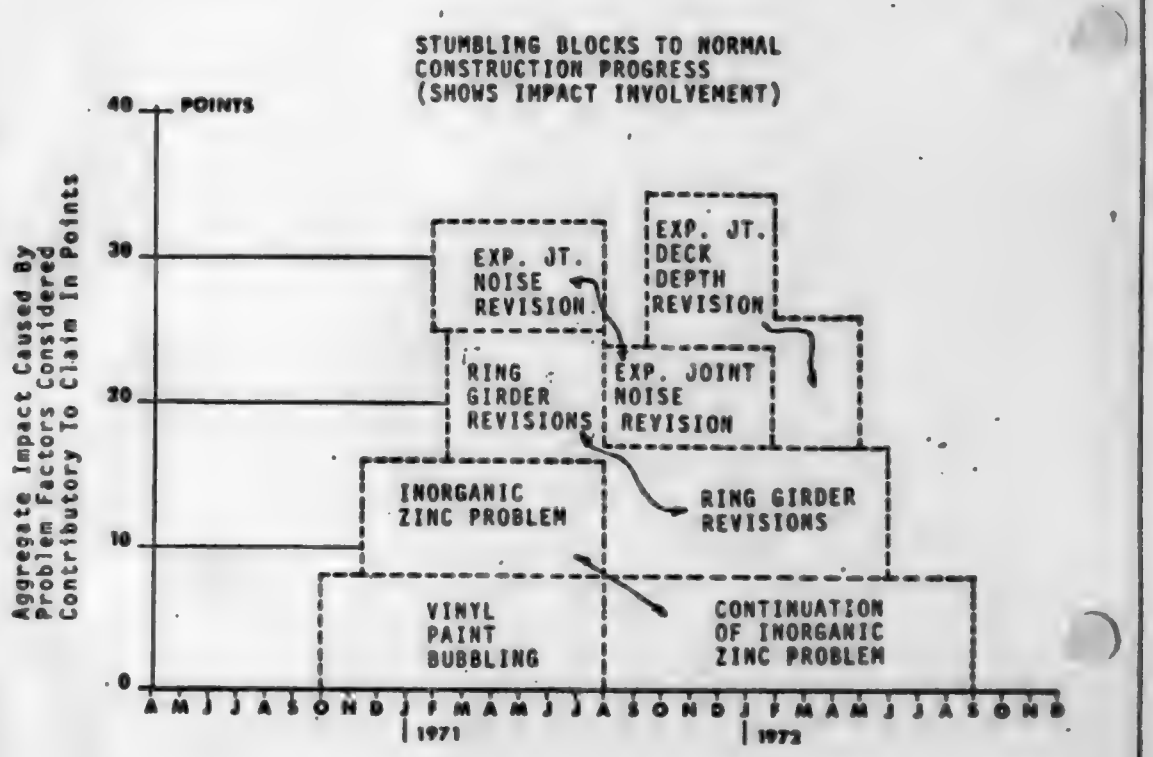

STUMBLING BLOCKS TO NORMAL CONSTRUCTION PROGRESS (SHOWS IMPACT INVOLVEMENT)
Aggregate Impact Caused By Problem Factors Considered Contributory To Claim In Points
40
30
20
10
0
POINTS
EXP. JT. NOISE REVISION.
EXP. JT. DECK DEPTH REVISION
RING GIRDER REVISIONS
EXP. JOINT NOISE REVISION
INORGANIC ZINC PROBLEM
RING GIRDER REVISIONS
VINYL PAINT BUBBLING
CONTINUATION OF INORGANIC ZINC PROBLEM
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972

EXHIBIT B: ANALYSIS OF IMPACT

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	A: IMPACT STATEMENT B: ANALYSIS OF IMPACT

EXHIBITS C&D

IMPACT FACTORS		VINYL PAINT BUBBLING	INORGANIC ZN OXIDE & REPAIR	RING GIRDER REVISION	EXP JOINT NOISE REVISION	EXP JOINT DECK DEPTH REVISION	MTHLY TOTAL
FACTOR IMPACT NUMBER		8	8	9	7	9	
MONTH OF INVOLVEMENT	1970 O	8					8
	N	8	4				12
	D	8	8				16
	1971 J	8	8				16
	F	8	8	4.5	7		27.5
	M	8	8	9	7		32
	A	8	8	9	7		32
	M	8	8	9	7		32
	J	8	8	9	7		32
	J	8	8	9	7		32
	A		8	9	7		24
	S		8	9	7		24
	O		8	9	7	9	33
	N		8	9	7	9	33
	D		8	9	7	9	33
	1972 J		8	9	7	9	33
	F		8	9		9	26
	M		8	9		9	26
	A		8	9			17
	M		8	9			17
	J		8	9			17
	J		8				8
	A		8				8

EXHIBIT C: FACTOR POINTS ANALYSIS

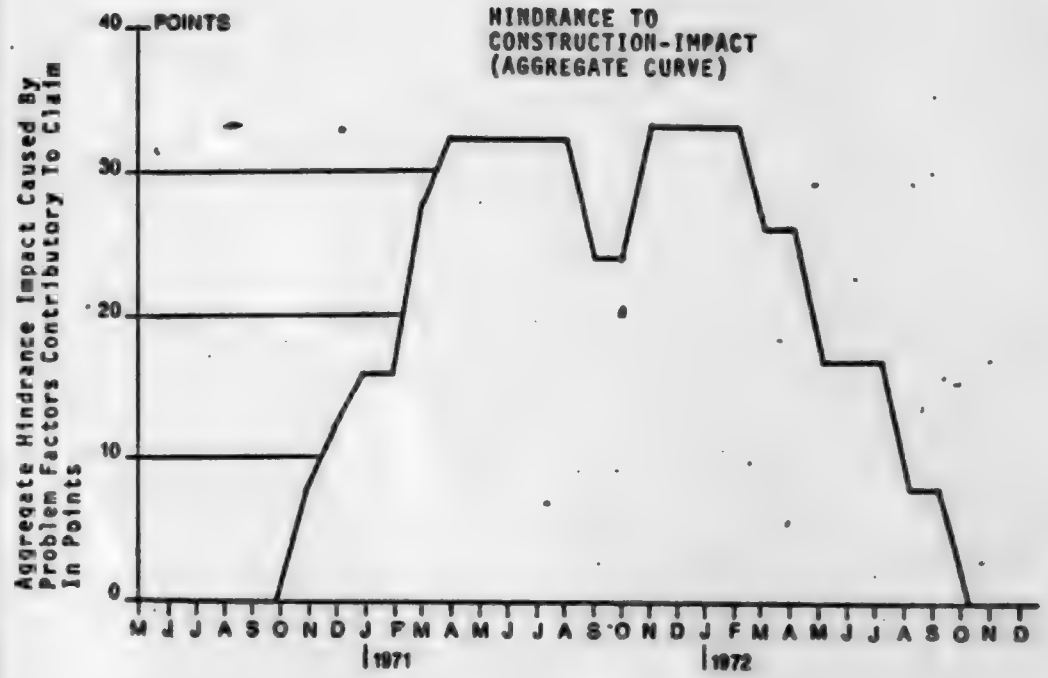

HINDRANCE TO CONSTRUCTION-IMPACT (AGGREGATE CURVE)
Aggregate Hindrance Impact Caused By Problem Factors Contributory To Claim In Points
40 POINTS
30
20
10
0
M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972

EXHIBIT D: ANALYSIS OF PROBLEM FACTORS IMPACT

DRAKE - WILLAMETTE, J V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	C: IMPACT FACTOR POINTS ANALYSIS D: ANALYSIS OF PROBLEM FACTORS IMPACT

TABLE NO. I:

	Work Process Involved	Amount of Claim for this Process
1.	Structural Steel Erection & Bolt-Up	$300,023.04
2.	Deck Forming at Structural Steel	184,750.60
3.	Deck Concrete Placement at Structural Steel	10,968.45
4.	Deck-Wet (Broom) Finish	24,192.00
5.	Parapet - Forming	30,394.92
6.	Parapet - Concrete Placement	4,977.65
7.	Parapet - Dry Finish	37,689.60
8.	Deck - Water Cure	1,691.05
9.	Clean Concrete off Structural Steel	105,191.40
10.	Parapet - Water Cure	4,211.26
	TOTAL - Loss of Productivity Claim	$704,089.97

It should be noted at this time that adjustments have been made in these values to reflect such items as the effect of labor strikes.

Exhibit "O" shows the unseasonably excessive precipitation encountered by the contractor from early September of 1971 until June, 1972, contributing much to the productivity loss in those activities planned to be in operation or completed in the summer months of 1971.

Fixed expenses beyond the original contract deadline. Next are presented those fixed expenses to which the contractor is entitled because the accumulative effect of the impacting factors forced completion of work into the third construction season.

Once the normal construction process suffered the full impact of problems encountered, it became virtually impossible to prevent carryover into the third construction season. This carryover was not the fault of the contractor. Because of the excessive amounts and duration of precipitation during the aforementioned period, excessive expenses were again incurred by the contractor. Restitution for these expenditures beyond the end of original contract time is also requested. These costs are set forth in Table II. (NOTE: Because the three contracts involved were treated as one by the contractor, October 31, 1971, has been set as the deadline, because each of the three contract deadlines, as extended, fell nearest this date. Contract completion deadline in this frame of reference is not to be confused with the revised completion date by the interim time extension granted on February 22, 1972.)

TABLE I - EAST FREMONT INTERCHANGE

LOSS OF PRODUCTIVITY DATA

GRAPH NO.	DESCRIPTION	CREW MAKEUP	LABOR RATES - DETERMINATED INCL. TAXES, FRINGES & 20% LABOR MARKUP: APPLIC. RATES PER HR.	LABOR COSTS PER HR.	TOTAL COMPOSITE RATE/HR.	TOTAL EST. QUANTITY INVOLVED	PLANNED PERFORM.	ACTUAL PERFORM.	LOSS OF PROD. IN MAN HRS.	TOTAL COSTS LOSS IN PROD.
1	Struc. Steel Erection	90% I.W. 10% Oper.	11.05 10.91	9.95 1.09	11.04	12448 T	0.232 T/Man Hr.	0.154 T/Man Hr.	27,176 Man Hr.	$300,023.04
2	Deck Form @ Str. Stl.	75% Carp. 25% Labor	9.92 8.81	7.44 2.20	9.64	488,884 Sq. Ft.	9.80 Sq.Ft./ Man Hr.	7.08 Sq.Ft./ Man Hr.	19,165 Man Hr.	184,750.60
3	Place Deck Conc.	All Labor	8.81	8.81	8.81	12,903 Cu. Yd.	2.54 Cu.Yd./ Man Hr.	2.04 Cu.Yd./ Man Hr.	1,245 Man Hr.	10,968.45
4	Deck Wet Finish	All Conc. Fin.	9.60	9.60	9.60	523,000 Sq. Ft.	122.9 Sq.Ft./ Man Hr.	77.2 Sq. Ft./ Man Hr.	2,520 Man Hr.	24,192.00
5	Form Parapet Rails	75% Carp. 25% Labor	9.92 8.81	7.44 2.20	9.64	118,372 Sq. Ft.	Rev. 13.93 Sq. Ft./ Man Hr.	10.16 Sq.Ft./ Man Hr.	3,153 Man Hr.	30,394.92
6	Place Parapet Conc.	All Labor	8.81	8.81	8.81	2,735 Cu.Yd.	1.56 Cu.Yd./ Man Hr.	1.18 Cu.Yd./ Man Hr.	565 Man Hr.	4,977.65
7	Parapet - Dry Finish	All Conc. Fin.	9.60	9.60	9.60	134,998 Sq. Ft.	32.1 Sq.Ft./ Man Hr.	16.6 Sq.Ft./ Man Hr.	3,926 Man Hr.	37,689.60
8	Deck Water Cure	All Labor (Incl.Over-Time)	8.81 2.10	8.81 2.10	10.91	555,972 Sq. Ft.	Rev. 1798 Sq. Ft./ Man Hr.	1198 Sq.Ft./ Man Hr.	155 Man Hr.	1,691.05
9	Clean Struc. Steel	All Labor	8.81	8.81	8.81	469,410 Sq. Ft.	628 Sq.Ft./ Man Hr.	37 Sq.Ft./ Man Hr.	11,940 Man Hr.	105,191.40
10	Parapet Water Cure	All Labor (Incl.Over-Time)	8.81 2.10	8.81 2.10	10.91	135,772 Sq. Ft.	845 Sq.Ft./ Man Hr.	248 Sq.Ft./ Man Hr.	386 Man Hr.	4,211.26
							TOTAL COSTS (Incl. Markups)	=		$704,089.97

TABLE II:

General Condition Expense

1. Labor

a.	General Overhead (on site)	$208,323.60
b.	Equip. Oper. Costs – 3rd year	71,867.22
c.	Winter, Maint., Misc. Costs, 3rd year	18,634.14
	TOTAL LABOR	$298,824.96

2. Equipment

a.	General Conditions	$ 40,315.14
b.	Concrete Equipment	217,000.77
c.	Light Equipment	9,130.05
d.	Struc. Steel Equipment	59,940.51
	TOTAL EQUIPMENT . .	$326,206.47

3. Materials

a.	Materials	
	1. Street & Road Maint.	$ 5,182.82
	2. Taxes & Insurance	18,861.66
	3. Office Expenses (incl. Consultant to 3/15/73)	44,409.36
	4. Utilities Expenses	7,243.31
	5. Hot Water – 3rd winter Concrete	534.18
	6. Struc. Steel Misc. & Gen. Consum.	7,650.11
	7. Form Hdwe. & Lbr. – 3rd year Rent	30,772.60
	8. Equip. Oper. & Repairs to 3rd Pty. R.	22,538.95
	9. Zinc Primer Repairs (Pd. to Klaas)	173,283.69
	SUBTOTAL MATERIALS	$310,476.68
b.	Materials Escalation	6,362.35
	TOTAL MATERIALS . . .	$941,870.46

Subcontractor Claims:

In addition to the foregoing expenses, several of the subcontractors have presented claims through the contractor because of the impacted construction process. Table No. III sets forth these subcontractor claims.

TABLE III:

Subcontractor	Amount of Claim
1. Canron, Ltd. (United States)	$233,971.90 (U.S.)
2. Gilmore Steel Contractors, Inc.	179,422.91
3. Klaas Bros., Inc.	110,210.86
TOTAL of Subcontractural Claims	$523,605.67

Copies of these claims are marked Exhibits "P", "Q" and "R", respectively.

Late Items:

The late items of fixed expenses to be included are as follows:

1. Consultant Fees, after 2/1/73	
a. Management Consultation	$ 5,400.00
b. Claims Preparation - Outside	4,600.00
2. Attorney Fees after 2/1/73 (Estimated)	100,000.00
3. Late materials billings	9,453.00
TOTAL Late Items	$119,453.55

Portions of the preceding data has involved a judgment factor, but conservatism in behalf of the State has been utilized throughout in making these allocations. Records are available for audit where they specifically apply. These records are presently housed in the offices of Donald M. Drake Company, 1740 N.W. Flanders St., Portland, Oregon 97209.

The entire amount of the claim is $2,289,019.65, and payment is requested on the basis of the foregoing presentations. Expeditious settlement of this claim is requested.

EAST FORMAT INT.
LOSS OF PRODUCTIVITY DATA
SAMPLE CALCULATION

5. Forming Parapet Rails
Use Graph 5

Planned Performance:
From Graph 5, Revised Planned Performance
= 13.93 Sq. Ft/MH

Total Est. Quantity (Pg 12A) = 118,372 Sq. Ft.

Planned "Effort" = $\frac{118,372}{13.92}$ = 8,498 MH

Actual Performance:
From Graph 5, Actual Performance = 10.16 $\frac{Sq. Ft}{MH}$

Actual "Effort" = $\frac{118,372}{10.16}$ = 11,651 MH

Loss of Production = 11,651 − 8,498

= 3,153 MH

Cost of Loss of Production @ $9.64/MH

= 3,153 × 9.64

= $30,394.92

EAST FITMENT ENT.
LOSS OF PRODUCTIVITY DATA
SAMPLE CALCULATION

9. Clean Structural Steel
Use graph 9

Planned Performance:
From Graph 9, Planned Performance = 628 Sq. Ft./MH
Total est. Quantity (Pg 18A) = 469,410 Sq. Ft.
Planned "Effort" = 469,410/628 = 747.5 MH

Actual Performance:
From Graph 9, Actual Performance = 37 Sq. Ft./MH
Actual "Effort" = 469,410/37 = 12,687 M.H.

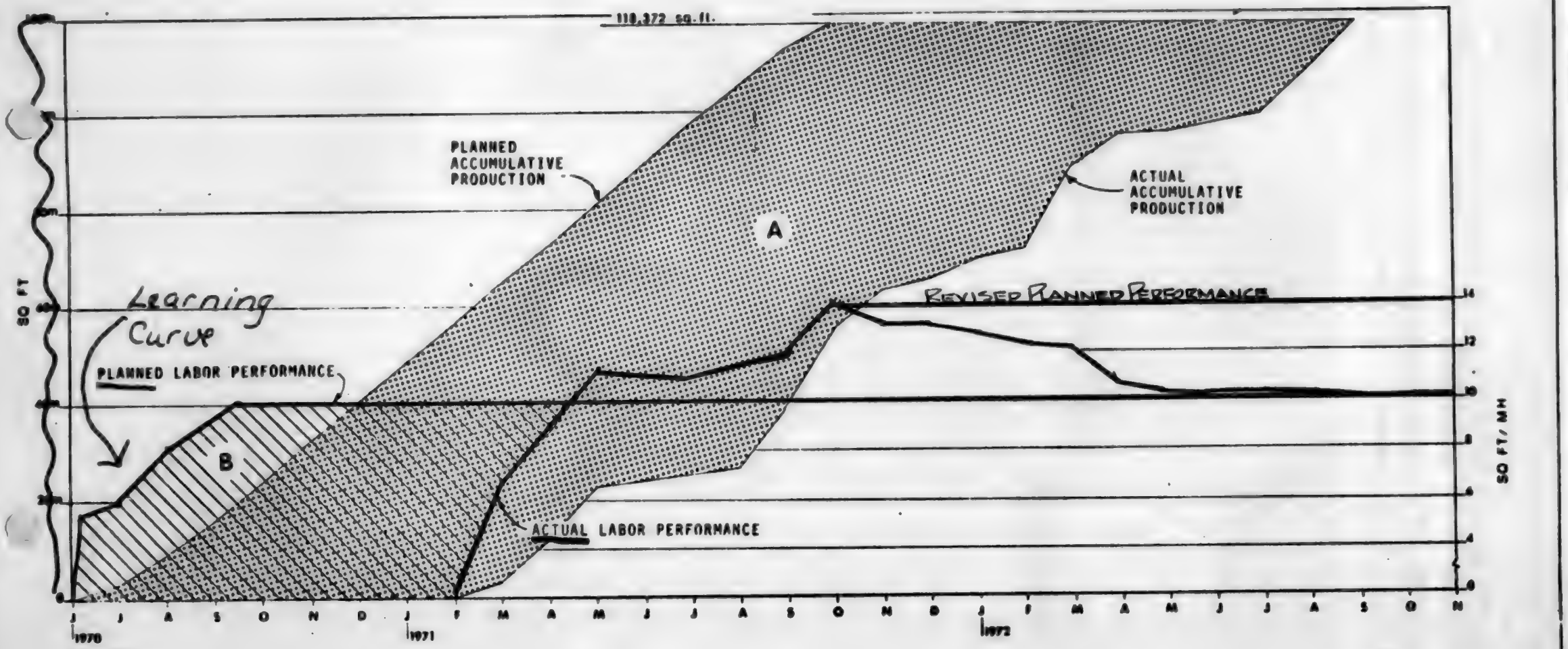
Loss of Production = 12,687 − 747.5
= 11,939.5 M.H.

Cost of Loss of Production @ $ 8.81/MH

= 11,939.5 × 8.81

= $ 105,187.00

GRAPH 5


110,372 sq. ft.
PLANNED ACCUMULATIVE PRODUCTION
ACTUAL ACCUMULATIVE PRODUCTION
A
Learning Curve
REVISED PLANNED PERFORMANCE
PLANNED LABOR PERFORMANCE
B
ACTUAL LABOR PERFORMANCE
SQ FT
SQ FT/ MH
J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N
1970
1971
1972

LEGEND:

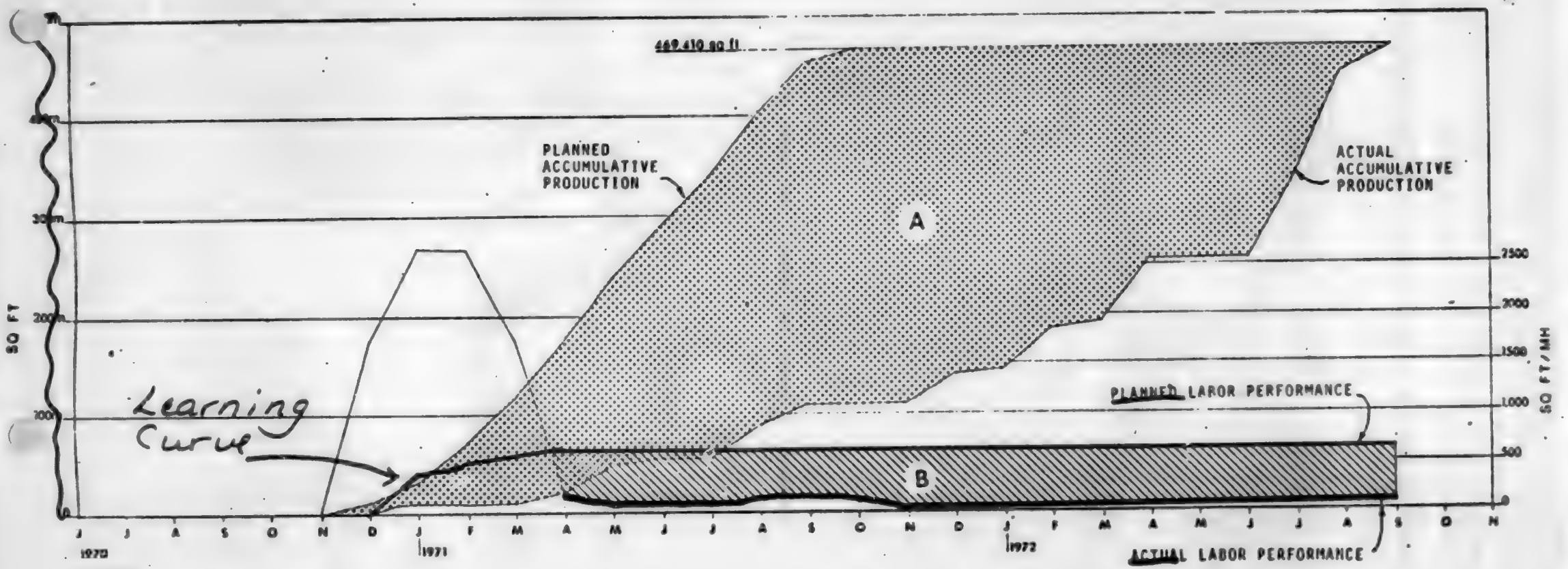
AREA A: ADJ. AREA = 1,011,386 SQ. FT. - MONTHS

AREA B: ADJ. AREA = 57.30 SQ. FT. - MONTHS PER M.H.

REVISED PLANNED AVERAGE PERFORMANCE = 13.93 SF/MH
ACTUAL AVERAGE PERFORMANCE = 10.16 SF/MH

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	FORMING PARAPET RAILS A. Accumulative Performance. B. Learning Experience Curves.

GRAPH 9



LEGEND:

AREA A: ADJ. AREA = 4,195,580 SQ. FT. - MONTHS

AREA B: ADJ. AREA = 15,207 SQ. FT. - MONTHS PER M.H.

PLANNED AVERAGE PERFORMANCE = 628 SF/MH
ACTUAL AVERAGE PERFORMANCE = 37 SF/MH

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	CLEAN STRUCTURAL STEEL A. Accumulative Performance. B. Learning Experience Curves.

PRELIMINARY ANALYSIS OF ZINC BREAKDOWN PROBLEM

Contractor claims Portland environment causes breakdown.

Support: He says this must be the cause since everything else was controlled by our specifications and done properly, with P T L as witness.

State claims work was done improperly in Vancouver. Nothing wrong with Portland environment.

Support:

(1) Test panels put out by OSHD Lab.
(2) Performance of inorganic zinc on superstructure contract.
(3) Performance of Canron's test panels in Portland.
(4) Comments from CWAPA that pollutant levels in Portland are not high enough to cause trouble.
(5) Performance of portions of Canron's zinc in Portland.
(6) Statements from Enjay Paint Company which they hope to substantiate with lab tests.
(7) Statement by PTL's lead inspector that "it is our belief that the primer problems noted at the job site were caused by a general paint application procedure problem encountered at the fabricator's plant...."

7310

FORM E-90 (REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 20, 1973

SUBJECT: East Fremont Interchange
Contract Nos. 7310, 7311 and 7312

To: R. N. Bottman
Metropolitan Engineer
ATTN: A. C. Harwood

FROM:
Edward L. Hardt
Construction Field Operations Engineer

I have your letter of June 13 relating to latex paint problems on the East Fremont Interchange.

This question has been discussed with Walt Hart and Scott Coulter and as a result we concur with your recommendations as follows:

1. Reject the contractor's claim for cost of remedial work based on poor workmanship. I think you and I should discuss this point with Bob Shotwell to make sure we are in good shape to resist this claim.

2. Accept the contract work.

3. Alert the FHWA that there may be need in the future for remedial work which we would expect to be Federal participating.

RECEIVED
JUN 27 1973
Office of
Assistant State Highway Engineer

ELH:fw
cc: H. S. Coulter
Walt Hart

7310

HOWARD NEEDLES TAMMEN & BERGENDOFF

June 19, 1973

Mr. E. S. Hunter
Assistant State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Re: Consultant Agreement
Fremont Approaches and
West Fremont Extension
Contract Nos. 7310, 7311,
7312, 7276 and 7623

Dear Mr. Hunter:

Enclosed are tracings for Sheets 1 through 50, Bridge 9268-B as requested in your letter of May 31, 1973.

Our accounting department is submitting the final billing for engineering services to close out the contract, as you suggested.

Yours very truly,

HOWARD, NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

Paul L. Heineman

PLH/mj

Enclosures

NOTED
E. S. HUNTER 6-28-73
Want w tracings
cc Abbey
Young

Planning Engineering Architectural Services

1805 Grand Avenue, Kansas City, Missouri 64108, 816 474-4300

Partners H. C. Lamberton, Jr., James F. Finn, Paul L. Heineman, Joseph H. Looper, Robert O. Drange, Bernard H. Rottinghaus, Gerard F. Fox, William M. Wachter, Browning Crow, Charles T. Hennigan, Edgar B. Johnson, Daniel J. Watkins
Associates Rex M. Whitton, Daniel J. Appel, Daniel J. Spigai, William C. Meredith, Orrin Riley, Francis X. Hall, Robert W. Richards
Offices Alexandria, Va., Atlanta, Baton Rouge, Boston, Buffalo, Charleston, W. Va., Chicago, Cleveland, Dallas, Fairfield, N. J., Kansas City, Miami, Milwaukee, Minneapolis, Newark, Del., New York, Orlando, Overland Park, Kan., Philadelphia, Richmond, Seattle, Washington, D.C., Lisbon, Rio de Janeiro

7310

B

CONTRACTORS DEVELOPERS

DONALD M. DRAKE COMPANY

1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209

INCORPORATED JANUARY 2, 1973

TELEPHONE (503) 226-3981

June 6, 1973

Mr. A.E. Johnson,
Deputy State Highway Engineer
State Highway Building
Salem, Oregon 97310

Reference: OSHD Contract Nos. 7310, 7311 and 7312
East Fremont Interchange
Multnomah County, Oregon

Dear Mr. Johnson:

In accordance with our previous correspondence and your written instructions of February 6, 1973, we herewith submit four copies of our request for equitable adjustment to the contract. Subject adjustment is due to the interferences, delays and additional expense as described in the referred-to submittal.

We request your review of this information, and will meet with you at your request if you need further clarification. Otherwise, we will anticipate and appreciate prompt payment following your review.

Very truly yours,

DONALD M. DRAKE COMPANY

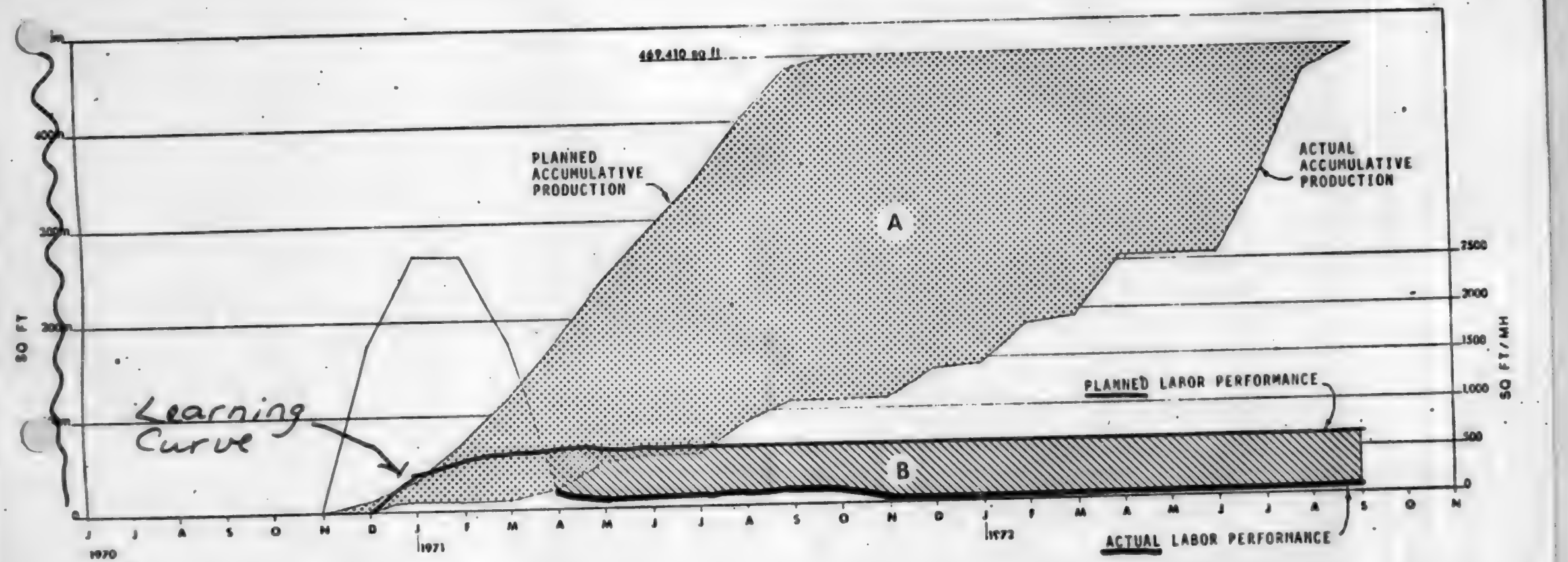
R. E. Grant

R. E. Grant, Vice President
Construction

REG:br
Encls.

NOTED
A. E. JOHNSON

GRAPH 9



LEGEND:

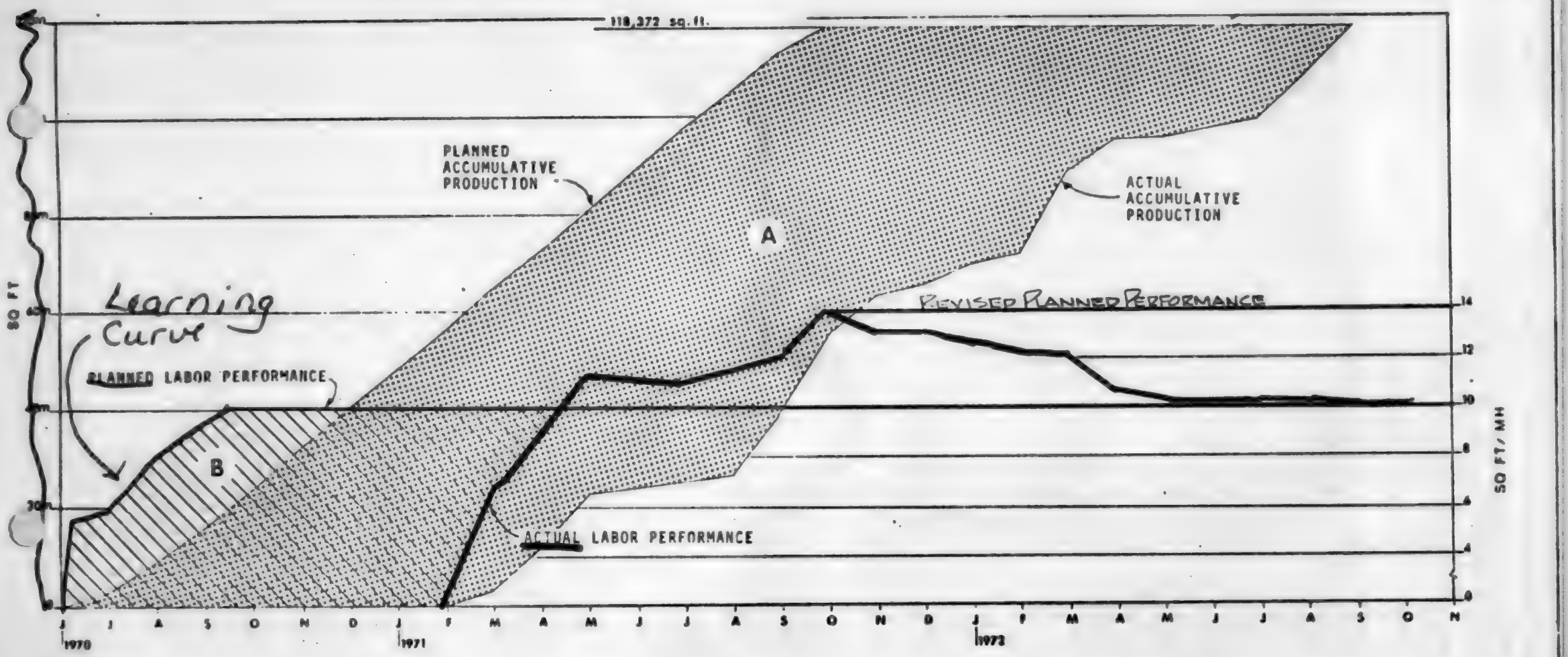
AREA A: ADJ. AREA = 4,195,580 SQ. FT. - MONTHS

AREA B: ADJ. AREA = 15,207 SQ. FT. - MONTHS PER M.H.

PLANNED AVERAGE PERFORMANCE = 628 SF/MH
ACTUAL AVERAGE PERFORMANCE = 37 SF/MH

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	CLEAN STRUCTURAL STEEL A. Accumulative Performance. B. Learning Experience Curves.

GRAPH 5


118,372 sq. ft.
PLANNED ACCUMULATIVE PRODUCTION
ACTUAL ACCUMULATIVE PRODUCTION
A
Learning Curve
PLANNED LABOR PERFORMANCE
REVISED PLANNED PERFORMANCE
B
ACTUAL LABOR PERFORMANCE
SQ FT
SQ FT / MH
J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N
1970
1971
1972
LEGEND:
AREA A: ADJ. AREA = 1,011,386 SQ. FT. - MONTHS
AREA B: ADJ. AREA = 57.30 SQ. FT. - MONTHS PER M.H.

REVISED PLANNED AVERAGE PERFORMANCE = 13.93 SQ FT/MH
ACTUAL AVERAGE PERFORMANCE = 10.16 SQ FT/MH

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	FORMING PARAPET RAILS A. Accumulative Performance. B. Learning Experience Curves.

7310 H S Coulter

FORM B-60

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE June 1, 1973

TO Memorandum to the File
ORIGINAL SIGNED
EDWARD L. HARDT

FROM Edward L. Hardt
Construction Field Engineer

7310

SUBJECT East and West Fremont Interchanges
Inorganic Zinc Paint

As part of my investigation of the inorganic zinc primer problem on the Fremont approaches, I talked with Mr. John Owen, who is Exxon Paint Company's West Coast representative. (Enjay Chemical Company has changed its name to Exxon Chemical Company.) As a result of this discussion, Mr. Owen said he and other Exxon people would like to meet with me to go over the problem.

Mr. Owen and Mr. Frank Koehler, Marine/Export Sales Manager for Exxon Chemical Company, visited me on May 31, 1973. Neither of these people had been connected with the Fremont project while the work was going on, so they had not actually seen the rusty steel.

We talked for about two hours in the Bridge office in Salem where I outlined the problem, and the fact that I was attempting to track down all possible reasons that would explain it.

After this we spent another two hours in Portland with John Howard and Bob Shotwell, who showed them photographs depicting the rust break-through. We discussed all of the aspects of the problem. I emphasized to Mr. Koehler and Mr. Owen that the contractor's (Canron) explanation of the primer problem was that the Portland environment was too harsh for the Rust-ban 191 and 193 and this caused the premature failure.

Mr. Koehler, the spokesman for the two (he is a graduate of MIT and speaks with considerable technical background and appears to be a world-wide trouble-shooter for Exxon), said that this explanation was not supported by the experience that Exxon has had with its inorganic zinc. He cited examples in Western Europe where the environment was heavily polluted due to industrialization and their product had been used uncoated for several years without any problem. He did mention one location where they had had a problem with the industrial atmosphere affecting one mil of inorganic zinc. The acid in the atmosphere condensed on the paint and caused trouble because there was no rainfall to wash it away. This "trouble" was evidenced by "lepers spots" on the surface which gradually enlarged with time. This would indicate that if the Portland environment had caused the problem with the inorganic zinc, it would have been manifested in a different fashion, that is, the zinc would have become mottled in appearance rather than causing a rusting of the steel itself.

RECEIVED
JUN 5 1973
Office of
Assistant State Highway Engineer

After looking at the photographs showing typical examples of rust bloom on girders, Mr. Koehler said that this looked to him like an application problem. He mentioned that his Company has found that with inorganic zinc paint unless there is "extra good" quality control and inspection in the paint shop, they are likely to have a problem with the application of this paint.

The Exxon people were asked to supply documentation regarding the successful past history of Rust-Ban 191 and particularly 193 used in environment similar to Portland's. I also requested that Mr. Koehler give me a written statement as to his opinion of the performance of Rust-Ban 193 in the Portland environment. He indicated he would respond to the best of his ability.

The Exxon people mentioned that they had lost a large contract in the Philipines because of the poor reputation that their product has as a result of the Fremont experience and they were anxious to get the question cleared up.

ELH/ag

cc A. E. Johnson
H. S. Coulter
R. Shotwell
J. Howard
J. Jenkins

7310

REVISED 5-29-73

FORM [illegible] REV 12 66

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

	SECTION: East Fremont Interchange Units A, B, & C	WEEK ENDING: May 26, 1973
	HIGHWAY: Stadium Freeway	SECTION PREFIX: A. 626-1017 B. 626-1018 C. 626-1022
		COUNTY: Multnomah
NAME OF JOB: East Fremont Interchange	KIND OF WORK: Structures, Traffic Control Devices, Pavo, & Grade	
CONTRACTOR: Drake-Willamette, Joint Venturers	CONTRACT NUMBER: A. 7310 B. 7311 C. 7312	FEDERAL AID PROJECT NUMBER: A. I-405-8(22)304 B. I-405-8(23)304 C. I-405-8(24)304
DATE OF CONTRACT: September 11, 1969	DATE WORK STARTED: September 26, 1969	

	Unit A	Unit B	Unit C
PROJECT AUTHORIZATION:	$13,928,737.75	$9,458,459.11	$2,218,093.60
EXCLUSIVE OF ENGINEERING:	$13,265,464.50	$9,008,056.29	$2,107,188.92
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING:	$13,459,737.17	$9,022,108.61	$2,064,094.98
ESTIMATED PERCENT: OVERRUN / UNDERRUN	1.45%	0.16%	2.05%
ENGINEERING AUTHORIZATION	$663,273.25	$450,402.82	$110,904.68
ENGINEERING COST TO DATE	$627,000	$437,300	$92,500
PERCENT OF AUTHORIZATION	94.53%	97.09%	83.40%
SPECIFIED CALENDAR DAYS	A. 510 B. 965	965	A. 330 B. 965
CALENDAR DAYS USED	A. PA B. 949	900	A. PA B. 943
PERCENT OF TIME ELAPSED	A. PA B. 98.3	93.3	A. PA B. 97.7
PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST	100.00	100.00	100.00**
PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION	100.07	100.01	97.2
DATE PROJECT WAS COMPLETED:	April 27, 1973	May 25, 1973	Dec. 23, 1972

EQUIPMENT USED DURING THE WEEK:

** Excluding contingencies not used.

Snooper truck, truck, pickup, air compressor, spider climbers, and Misc. tools.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.	8958-1	8958-2	8958-3
PERCENT	100.00	100.00	100.00

	WEATHER	WORK DAYS CHARGED	HOURS DELAY
SUNDAY		Does Not	
MONDAY	Clear-warm	Apply	
TUESDAY	Light Showers A. M. Cloudy		
WEDNESDAY	Cloudy-showers		
THURSDAY	Cloudy-showers		
FRIDAY	Partly cloudy		
SATURDAY			

Total Average Force on Projects Unit A, B, C For the Week

Men: 2 Supervision: 1

RECEIVED
OREGON STATE HIGHWAY DEPT.
BRIDGE DIVISION
AM DEC 30 PM
7,8,9,10,11,12,1,2,3,4,5,6

RECEIVED
JUN 01 1973
BRIDGE DIVISION

RECEIVED MAY 31 1973 CONSTRUCTION SECTION

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY	REVISED 5-29-73
MONDAY	Do latex paint corrective work on Unit B.
TUESDAY	Do latex paint corrective work on Unit B.
WEDNESDAY	No Activity do to weather.
THURSDAY	No activity do to weather.
FRIDAY	Finish latex paint corrective work on Unit B.
SATURDAY	

REMARKS

STATUS: Units A,B,C are complete.

NEXT WEEK: This is the last Field Engineer's Weekly Report on this project.

SIGNED Robert E. Shotwell, Resident Bridge Engineer

LOCATION 1101 North Russell St. Portland, Oregon 97227

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

5 11-43

5

7310

Mr. Richard A. Franzke
Attorney at Law
909 S.W. Fifth Avenue
Portland, Oregon 97204

7310

Dear Mr. Franzke:

East and West Fremont Interchange Project
(Primer Problems)
Your Client: Canron Limited

In reply to your letter of April 13 concerning the above problem, I have the following to offer.

Until such time as we have received all of the itemized claims of the prime contractor on this job and have transmitted those claims to the Federal Government for initial consideration, we are not in a position to make any reply as to substantive decisions. The Highway Division will be able to work on the information from the prime contractor as soon as it is received but until it is received and processed, there is no basis upon which a decision can be made.

We appreciate the cooperation you have extended us in the past and the patience you have observed, but we are necessarily limited by the request of the Federal Highway Administration and by the time it takes the prime contractor to provide us with an itemization of his claim concerning this matter.

Sincerely,

George W. Baldwin
Administrator of Highways

cc: F. B. Klaboe
A. E. Johnson
E. S. Hunter
Walter J. Hart
R. W. Bothman
Walter Barrie

JLS:am kw

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPONT

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERS
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
EDWARD L. EPSTEIN
BRIAN G. BOOTH
WILLIAM M. McALLISTER
BARNES H. ELLIS
HOWARD M. FEUERSTEIN
PHILLIP D. CHADSEY

JOHN E. HUISMAN
BERTRAND J. CLOSE
VELMA JEREMIAH

KENNETH D. STEPHENS
DAVID P. MILLER
TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
WALTER C. MINNICK
JERE M. WEBB
RONALD S. GROSSMANN
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
K. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE
DONALD J. BOYD
WILLIAM G. MIGELY
GREGORY J. HOWE
JOHN M. SCHWEITZER
WILLIAM F. MARTSON, JR.
MICHAEL M. MORGAN
RICHARD M. BOTTER

April 13, 1973

Mr. George M. Baldwin,
Highway Administrator
Room 135
State Highway Building
Salem, Oregon 97310

Dear Mr. Baldwin:

Re: East and West Fremont Interchange Project
(Primer Problems)

We are counsel for Canron Limited, steel fabricating subcontractor on both the East and West Fremont approach projects. For the past 14 months we have been negotiating with the Highway Department, principally through the office of Leonard Lindas, in an effort to resolve the question of liability for problems experienced with the inorangic zinc primer that was applied to the steel members on these projects. With the various personnel changes you have experienced within the Highway Department in recent months and our feeling of utter frustration in arriving at a solution to this matter, we felt we should bring the existence of the problem to your attention at this time. We wish to make it clear, however, that in doing so we do not intend to inferentially critize anyone presently within the department; we understand, even though we cannot accept, the complexities of the highway administrative system and the effect of these recent personnel changes.

I will not attempt in this letter to go into great detail concerning the cause and effect of the paint problem. Suffice it to say that the specifications for these projects required use of what might be called a "exotic" new paint system, about which relatively little was known at the time of design. Canron Limited questioned the advisability of using this paint because several manufacturers expressed reluctance to have their products used, but nevertheless it was retained in the specifications. Subsequently, problems developed with the paint, primarily a loss of paint film thickness and rusting. Canron suggested

and eventually it was reviewed by the regional FHA office in Portland which concurred in Mr. Saroyan's conclusion. For reasons that are not entirely clear at this time, some hang-up developed within the FHA so that it now says it will not consent to the Highway Department giving us its decision until the dollar amount of the claims of the prime contractors is established.

It is our understanding the prime contractors are assembling their claims for presentation to the State and also that the Highway Department is assembling some information requested by the FHA. It is our hope and expectation that the Highway Department will work diligently on this problem finally to resolve it. As Mr. Lindas said, this matter has been under discussion for over a year and "good conscience" dictates that the State should not further delay acknowledging that it, and not the subcontractor, is responsible. And as he pointed out, such an acknowledgment would not commit the State to approve any specific monetary adjustment. The prime contractors would of course have to document their entitlement to any additional money.

We will continue to work cooperatively with your legal and engineering people in the hope that this matter can be resolved without litigation. If litigation is necessary it will be extremely expensive and demanding upon all parties. At this time we only ask that you, to the extent practicable, try to impress upon all concerned that this matter desires their prompt and complete attention.

We will appreciate anything you can do to expedite resolution of this matter and of course we would be happy to discuss it further at your convenience or to furnish any additional information you might desire.

Very truly yours,

Richard A. Franzke

Richard A. Franzke

cc: Walt Barrie, Chief Counsel, OSHD

RECEIVED
APR 15 1973
OFFICE OF
ADMINISTRATOR OF HIGHWAYS

certain preventive and remedial measures at that time, but was not permitted to implement them. The Highway Department officially took the position at that time that the subcontractor alone was responsible for the problem and would have to repair the paint at its expense.

Over a period of several months Canron conducted extensive investigation into the cause of the paint failure, utilizing the services of outside consultants including one of the inventors of the inorangic paint system. This investigation revealed similar failures on other projects and lead to the conclusion that the specifications were inappropriate for this job. The results of our analysis of the problem were presented to Mr. Lindas about 14 months ago with the request the State reconsider the position it initially took, and if it concurred with the conclusions we had reached that it issue a statement retracting its former position and exonerating the subcontractor.

Mr. Lindas and I agreed to pursue this matter "informally" with the hope of avoiding litigation. We also agreed to limit our consideration in the first instance to the question of liability, avoiding for the time being determination of damages attributable to the paint problem. Everyone involved recognized that the answer to the question "who's at fault" did not turn upon the amount of damage.

After repair of the primer was completed, the State paid the prime contractors in full under their contracts. However, the State never retracted its early statements charging Canron with fault. Consequently the prime contractors continued to withhold payment from Canron of approximately $2,000,000 in retainage on the ground that the State, at least officially, had never retracted those statements.

In a further effort to finally resolve the question of responsibility, Mr. Lindas and I agreed upon a joint "arbitration" of the matter and for this purpose Mr. John Saroyan, one of the inventors of the subject paint system, was retained to review the case. He answered specific questions submitted to him and his conclusion was that the entire problem would have been avoided if the specification had been written properly. Notwithstanding this decision, the State Highway Department declined to retract its previous statement without the concurrance of the Federal Highway Administration. The whole case was submitted to the FHA in Salem

February 6, 1973

Andersen-Hannan
Post Office Box 13367
Portland, OR 97213

Attention Mr. H. A. Andersen

Gentlemen:

This will acknowledge your letter of January 22 concerning various problems in connection with painting of the West Fremont Interchange, Contract No. 7214. We do not agree with your statement in the first paragraph..."that a consensus has been arrived at to the point where it is now recognized that there is no responsibility on our part or the part of our fabricator for the defects and deficiences requiring repair."

We understand that you are withholding payment of Canron's retainage on the basis of a purported statement by Mr. Edwards that the failure of the zinc primer was the responsibility of Canron. We have made an exhaustive investigation of the problem and now advise you that we are unable to determine at this time the responsibility of failure.

In your January 22 letter you are implying numerous claims in connection with the problem with the zinc primer as well as the vinyl coat, and until these items are presented in detail, it will be impossible to consider any claims. I would urge you to submit as soon as possible all of your claims in connection with your project.

Very truly yours,

F. B. Klaboe
State Highway Engineer

cc Henry Hannan
A. E. Johnson
H. Scott Coulter
Walter J. Hart
R. N. Bothman
L. I. Lindas
V. E. Skoog
AEJ:ms John Howard

A-121 (12-67)
ED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

7310

TO : Mr. George H. Baldwin, Administrator of Highways
Salem, Oregon

DATE: May 4, 1973

In reply refer to: 10-35-DA

FROM : Mr. G. L. Green, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
State Force Order No. 19 (Unit A) & 5 (Unit B)
Total Estimated Amount of the Orders - $2,200.00
Federal Participation - $1,180.00

Reference is made to Mr. Young's letters of April 30, concerning the subject orders.

The use of State Forces to modify the roadway illumination is approved as being in the public interest under the provision of PPM 21-6.2 for the following reasons:

1. The contractor is no longer on the project. Observation and testing of the completed system revealed the need for uniformity adjustments. The amount of work is too small to warrant a contract.

2. The State has trained men and specialized equipment to perform the work economically and expeditiously.

Federal participation will be based on actual cost. A copy of the approved orders is returned herewith. This will confirm our February 2nd verbal authorization to proceed with the work.

Enclosure
State Force Orders No. 19 & 5

RECEIVED
MAY 8 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

RECEIVED
STATE HWY ENGR
MAY 8 '73
REFER TO
Coulter-cy
FOR

NOTED
E. S. HUNTER

NOTED
A. E. [illegible]
Coulter - Hunter

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

STATE COPY

OREGON STATE HIGHWAY DEPARTMENT

Order for State Force Work

EFFECTIVE DATE 2-2-73
upon modification of pro-
funds are

APPLYING TO CONTRACT PROJECTS 5-4-73 Order No. 19

Project Name East Fremont Inter. Unit A Date 4-11, 19 73

Highway Stadium Fwy. Contract No. 7316 F. A. Project No. I-405-8(22)

County Mult. Prefix 626-1017 Account No. 277-18 304

Description of Work To Be Done:

Modify roadway and sign illumination

Location by Station Numbers:

Throughout Project

Estimate of Quantities and Costs:

Labor	1,000.00
Equipment	300.00
Material	300.00
	1,600.00

Explanation:

The roadway and sign lighting was installed as per contract plann. A night inspection revealed necessary modifications to correct dark areas on the roadway, and excessive "light spillage" from the top mounted sign luminaires. Work has not been started.

INSTRUCTIONS

Submit a separate order for each piece or kind of state force work to be undertaken. Use the account number applying to that work as indicated in the account numbers assigned to state force work on contract jobs.

Five copies of the order are to be submitted to Salem. After approval by the Assistant State Highway Engineer, one copy will be sent to the Division Engineer and one copy to the Resident Engineer.

Project authorization	$13,928,737.75
Present estimate of project cost, including $ 1600.00 for work under this order	$14,112,942.58
Expected ~~under-run~~ ~~over-run~~ (amount)	$ 184,204.83
Expected ~~under-run~~ over-run (per cent)	1.32

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Division Engineer

Approval Recommended: Construction Engineer or Bridge Engineer

Approved: [signature] ~~Deputy State Highway Engineer~~ ~~Assistant State Highway Engineer~~ Engineer

This order does not constitute authority for expenditures until approved by the Deputy or Assistant State Highway Engineer.

State Printing

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

7310

Salem, Oregon

DATE May 4, 1973

TO L. H. Young
Office Engineer

Attention C. G. Swenson

FROM Walter J. Hart
Bridge Engineer

SUBJECT East Fremont Intch. Units A and B
Contracts 7310 and 7311
Latex Paint

The latex paint specifications for concrete surfaces on the subject project allowed the use of either a polyvinyl acetate copolymer emulsion or a modified acrylic emulsion paint.

The contractor used the PVA alternate,and apparently due to the smooth surface and dryness of the concrete at the time of painting much of this paint has peeled.

Our laboratory feels that PVA is not as tolerant of these conditions as the acrylic and that use of the acrylic would produce better results. Because of this on all future projects the PVA alternate should be removed from the specifications.

RWE/ag

cc E. S. Hunter
D. H. Moehring
H. A. Schell

NOTED
E. S. HUNTER

RECEIVED
MAY 7 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

A-121 (12-67)
ED STATES GOVERNMENT

Memorandum

7310

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: May 4, 1973

In reply refer to: 10-35-DA

FROM : Mr. G. L. Green, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
State Force Order No. 19 (Unit A) & 5 (Unit B)
Total Estimated Amount of the Orders - $2,200.00
Federal Participation - $1,180.00

Reference is made to Mr. Young's letters of April 30, concerning the subject orders.

The use of State Forces to modify the roadway illumination is approved as being in the public interest under the provision of PPM 21-6.2 for the following reasons:

1. The contractor is no longer on the project. Observation and testing of the completed system revealed the need for uniformity adjustments. The amount of work is too small to warrant a contract.

2. The State has trained men and specialized equipment to perform the work economically and expeditiously.

Federal participation will be based on actual cost. A copy of the approved orders is returned herewith. This will confirm our February 2nd verbal authorization to proceed with the work.

Enclosure
State Force Orders No. 19 & 5

RECEIVED
STATE HWY ENGR
MAY 8 '73
REFER TO
FOR

NOTED

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

STATE C-7P

OREGON STATE HIGHWAY DEPARTMENT

EFFECTIVE DATE 2-2-73
Contingent upon modification of pro
Agreement ... are

Order for State Force Work

APPLYING TO CONTRACT PROJECTS 3-4-73 Order No. 19

Project Name East Fremont Inter. Unit A Date 4-11 19 73

Highway Stadium Fwy. Contract No. 7318 F. A. Project No. I-405-8(22)
304

County Mult. Prefix 626-1017 Account No. 277-19

Description of Work To Be Done:

Modify roadway and sign illumination

Location by Station Numbers:

Throughout Project

Estimate of Quantities and Costs:

Labor	1,000.00
Equipment	300.00
Material	300.00
	1,600.00

Explanation:

The roadway and sign lighting was installed as per contract plann. A night inspection revealed necessary modifications to correct dark areas on the roadway, and excessive "light spillage" from the top mounted sign luminaires. Work has not been started.

INSTRUCTIONS

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Expected ~~under-run~~ ~~over-run~~ (amount)	$ 184,204.83
Expected ~~under-run~~ over-run (per cent)	1.32

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Division Engineer

Approval Recommended: Construction Engineer or Bridge Engineer

Approved: [signature] Deputy ~~State Highway Engineer~~ Assistant State Highway Engineer

This order does not constitute authority for expenditures until approved by the Deputy or Assistant State Highway Engineer.

State Printing

Form FHWA-121 (
UNITED STATES GOVERNMENT

7310 *Memorandum*

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: April 17, 1973

In reply refer to: 10-35.7

FROM : Vernon V. Cusack, Acting Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(4)303
State Highway Commission vs. Oregon-Washington
Navigation Co.
Case No. 379-083 (L-6682, R-36087)

- # 1310

Assistant Attorney General Leslie B. Hampton's March 12 letter requested a modification of the land use restrictions involving the Union Pacific Railroad Yards.

It is our understanding that these proposed revisions have been reviewed and approved by Deputy State Highway Engineer A. E. Johnson. In addition, we have received a letter from Railroad and Utility Engineer J. E. Chidsey dated April 6, 1973 indicating agreement with the proposed land use restrictions.

We have reviewed the proposed revisions which were attached to Mr. Chidsey's April 6 letter and find them acceptable as a basis for negotiations with the Railroad. The revised land use restrictions should be submitted to the State's appraisers to determine if the modifications will affect the appraised value.

RECEIVED
STATE HWY ENGR
APR 18 '73
REFER TO
FOR

Orig - R/W-Chidsey
4-19-73

cc Dallis

NOTED
A. E. JOHNSON

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 917-544

7310

April 13, 1973

Davies, Biggs, Strayer, Stoel and Boley
Law Offices
23rd Floor
900 S. W. Fifth Avenue
Portland, Oregon 97204

Attention: Richard A. Franzke

+ 7310

Gentlemen:

The attached table is submitted in response to your letter of April 3, 1973.

The table includes all of the available information you requested.

It is impossible to project estimated dates for completion or acceptance where no date is given. There are so many variables involved, especially in these large contracts, that our people have very little idea as to just how long acceptance will take on a given project.

In the event this information is not adequate, please feel free to contact us for specific details. It may be possible to put you in touch with the Resident Engineer for a project, but it is unlikely that he will be able to provide estimated dates for acceptance.

Contract No. 7623 should be nearing completion as the original time limit and extensions appear to have passed.

Very truly yours,

C. W. Head, Secretary
OREGON STATE HIGHWAY COMMISSION

By
R. M. Graham, Assistant Secretary

RMG:ks
Attachment

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERS
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
EDWARD L. EPSTEIN
BRIAN G. BOOTH
WILLIAM M. McALLISTER
BARNES H. ELLIS
HOWARD M. FEUERSTEIN
PHILLIP D. CHADSEY

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TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
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JOHN E. HUISMAN
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VELMA JEREMIAH

KENNETH D. STEPHENS
DAVID P. MILLER
TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
WALTER C. MINNICK
JERE M. WEBB
RONALD S. GROSSMANN
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
K. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE
DONALD J. BOYD
WILLIAM G. MIGELY
GREGORY J. HOWE
JOHN M. SCHWEITZER
WILLIAM F. MARTSON, JR.
MICHAEL M. MORGAN
RICHARD M. BOTTERI

April 3, 1973

Mr. C. W. Head, Secretary
Oregon State Highway Commission
Highway Building
Salem, Oregon 97310

Dear Mr. Head:

Re: Fremont Bridge

With respect to all of the contracts involved in both the east and west side approach projects on the Fremont Bridge, would you please advise me of the formal status of the contracts, i.e., whether completed or formally accepted by the Highway Commission. If accepted, please advise on what dates; if not, your best estimate of when they will be accepted.

Your assistance in this matter is very much appreciated.

Very truly yours,

Richard A. Franzke

RAF:mm

MAILED

Contract No.	Contractor	Job Title	Completed	Accepted
7214	Andersen-Hannan	W. Fremont Inter.	10-19-72	
7298	E. Carl Schiewe	E. Fremont Inter.	3-5-70	5-12-70
7310	Willamette River Constructors	E. Fremont Inter. (Unit A)	11-28-72	
7311	Willamette River Constructors	E. Fremont Inter. (Unit B)	11-28-72	
7312	Willamette River Constructors	E. Fremont Inter. (Unit C)	11-28-72	2-2-73
7623	Drake-Willamette	W. Fremont Inter. (Unit 2)		

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

7310

April 6, 1973
Salem, OR 97310

SUBJECT: East Fremont Interchange
Stadium Freeway
Multnomah County
Fed. Project No. I-405-8(4)303
Case No. 379-083(L-6682 R-36087)

7310

To: V. V. Cusack
Acting Division Engineer

Federal Highway Administration

NOTED
A. E. JOHNSON

Attached is a revised copy of the proposed revised land use restrictions on the above-mentioned project. The major changes in the revision are in Paragraph 2, where the clearance between any buildings or structures or conduction of any activity is changed from within 5 feet of the supporting piers of said highway structures to 15 feet of the supporting piers. In addition, the railroad track clearance restriction is revised, providing that the centerline of the tracks is not closer than 12-1/2 feet to the exposed portion of the pier.

These changes have been discussed with W. J. Hart's office and they are in agreement with them.

It is hoped that these changes will resolve any conflicts which exist in this matter. If any additional information is desired, please call me.

J. E. Chidsey
Railroad and Utility Engineer

JEC:jly
Att.

cc: ~~A.~~ E. Johnson w/att.
J. B. Boyd "
J. L. Sollis "
Lee B. Hampton "

RECEIVED
APR 10 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

RECEIVED
STATE HWY ENGR
APR 6 '73
REFER TO
Hunter
FOR
Info | Invest | R/D | C/R | Sign | Act | File

NOTED
E. S. HUNTER

PROPOSED REVISED LAND USE RESTRICTIONS
(paragraphs numbered to correspond to paragraph III of Amended Complaint)

A. In conducting their operations in the easement area, defendants, their successors, legal representatives and assigns shall not:

1. Construct any buildings or structures that do not meet the Building Code of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

(a) All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except groups E-1, E-2, E-3, F-1, F-2, F-3 and F-4; provided further, the following types of occupancy shall be permitted, subject to any qualifications specified:

(1) Undertaking parlors, municipal policy and fire stations will be allowed.

(2) Office buildings will be allowed, provided that office buildings of two stories or more shall be of Type I or II construction and shall be equipped with an approved fire sprinkling system.

(3) Warehouse buildings may be constructed, provided:

(i) Walls and roof are constructed of fire resistive (1 hour rated) materials;

(ii) Openings (e.g., windows and doors) under the bridge and for 50 feet beyond are protected with approved fire resistive assemblies; and

(iii) The building shall be equipped with an approved fire sprinkling system.

(4) Transient warehouses may be constructed, provided:

(i) Walls and roof are constructed of fire resistive (1 hour rated) material;

(ii) Windows, doors and other openings, except bay doors are protected with approved fire resistive assemblies;

(iii) Bay doors shall be constructed of steel and equipped with an automatic closing device activated by fire responsive detectors; and

(iv) The building shall be equipped with an approved fire sprinkling system.

(b) Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

(c) Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 15 feet of the supporting piers of said highway structures except railroad tracks may be constructed and operated adjacent to said piers, provided the centerline of the tracks is not closer than 12 1/2 feet to the exposed portion of the pier. Truck access to the piers shall be maintained.

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any highly flammable, volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes, vapor or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, Oregon 97308

7310

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: April 2, 1973

In reply refer to: 10-35.32/
I-405-8(4)303

FROM : Vernon V. Cusack, Acting Division Engineer
Salem, Oregon

SUBJECT: Oregon I-405-8(4)303
State Highway Commission vs.
Oregon-Washington Navigation Co.
Case No. 379-083 (L-6682 R-36087) - #7310
Re: Mr. Leslie B. Hampton's ltr dated March 12, 1973

Our review indicates there might be some clearance requirements that need clarification. On projects of this nature we recommend that the Bridge Section be contacted at an early date and their concurrence indicated in your submission to us.

We think the proposed modification should resolve the difference between the Railroad and Highway Division and the State's offer should completely close out the project.

Please resubmit with the recommendation of the Bridge Section.

RECEIVED
STATE HWY ENGR
APR 3 '73
REFER TO

NOTED
E. S. HUNTER

cc Boyd-Als Blanda

4-6-73
original to Boyd

RECEIVED
APR 4 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 917-344

FORM E-30 (REV. 10-60)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

7310

Salem, Oregon
March 23, 1973

#7310

To: Mr. A. E. Johnson
Deputy State Highway Engineer
O F F I C E

SUBJECT: Report on Paint Exposure Test
Fremont & W. Fremont
& Astoria

Purpose of Test -

In the early part of 1971, the inorganic zinc primer for the Fremont Bridge approaches began to show premature failure. This was exhibited by rusting through much faster than anticipated for the inorganic zinc system which the State had specified. The manufacturer of the primer, Enjay, the fabricator, and applicator all indicated that for the hostile atmosphere of Portland, rapid deterioration of the inorganic zinc was to be anticipated. A survey of the literature does not substantiate this contention. After much discussion, it became evident that there was likely to be some type of court action taken, by one side or the other, to recover funds. With this possibility in mind, the Asst. Highway Engineer, A. E. Johnson asked the Materials & Research Unit to do investigation of outdoor exposure on the zinc primers used on the Fremont approaches, namely Rust Ban 191, Rust Ban 193 with 6851 post cure, and Carbozinc 11. The first two products are from Enjay Chemical, the last is from Carboline.

The method of test was as follows: Using 16" x 16" steel panels, blasted to "white" metal on both sides, the laboratory air spray Devilbiss M8C gun with the fluid tip, air cap and spring, recommended by the primer manufacturer and the primer supplied by the manufacturer, the panels were coated both sides as follows:

3 each RB191 - 2 mils
3 mils

3 each RB193 - 1 mil - no cure
1 mil - recommended cure rate
1 mil - twice recommended cure rate

3 each RB193 - 3 mil - no cure
3 mil - recommended cure rate
3 mil - twice recommended cure rate

3 each Carbozinc 11 - 2 mils
3 each Carbozinc 11 - 3 mils

RECEIVED
STATE HWY ENGR
MAR 26 '73
REFER TO
FOR
Info | [illegible] | [illegible] | Dir | Sec'n | Ass't | File

NOTED
A. E. Johnson

SP*58478-734

Note: The mil thickness given is not an absolute thickness, but a general reference. In some cases, thickness is twice that of the reference.

After coating the panels and letting them cure 72 hours, thickness measurements were made at 5 points on each panel with a calibrated Elcometer, single contact film inspection gage, and the readings recorded. On November 23, 1971, one set of plates was taken to each of the following sites: Astoria Maintenance Yard, South Exposure; East Fremont, on the roof of the Resident Engineer's Building, East Exposure; and West Fremont, on the roof of the Resident Engineer's Building, South Exposure.

General Discussion -

Zinc is one of the most commonly used cathodic protection materials. For large structures, anodes, many times zinc anodes, are used to protect steel which is immersed in water or imbedded in soil, e.g. gas, oil or water lines, telephone cables, etc. Zinc is used for galvanizing small structures that are in splash zones, which do not have constant wetting or that are above water or ground line, or which are too small for protection of an anode, e.g. culvert pipe, above ground piping, gutters, downspouts, etc. In the last few years, zinc as metallized zinc; zinc dust-zinc oxide, inorganic and organic zinc coatings has been used as a primer coating to protect ship decks, cargo containers, off-shore drilling rigs, bridges, etc.

Zinc protects steel by being more reactive than the base metal. For example, zinc protects steel, but would not be satisfactory for the protection of aluminum, which is more reactive than zinc. The mechanism of the protection is basically very simple as long as the zinc is in intimate contact with the steel. In the case where zinc is applied over a good clean blasted surface, and intimate contact is attained, the moisture which generally would cause the steel to rust, reacts instead with the zinc to form salts. This process continues until the ready supply of zinc is depleted. Some of the zinc salts are extremely soluble, as in the case of the chlorides, iodides, nitrates, and sulfates. However, many of the zinc salts are insoluble or nearly so, as in the case of chromate, oxide, phosphates, sulfides and sulfites. Notable among the insolubles are the phosphates, which are the reactive components in the Enjay 6851 post cure solution.

If the zinc is not in intimate contact with the steel, as in the case of poor blasting, or excess vehicle holding the zinc from the steel surface, moisture causes immediate attack on the base metal. Organic zinc primers and zinc dust-zinc oxide primers generally have approximately 90% zinc loading to insure continuity from the outer surface of the primer to the surface of the steel, which allows the zinc to protect the steel. The high loading is required due to the organic vehicle which possibly would act as an insulator. The inorganics, on the other hand, generally contain 80-85% zinc in the dried film. Less zinc is required because the vehicle dries to a conductive inorganic material, insuring good contact.

The particular zinc systems under consideration at the time of testing were Rust Ban 191, a water-borne inorganic silicate, Rust Ban 193, similar to 191, but with a surfactant which promotes better wetting characteristics, thus allowing less concern with surface profile (the 193 was post-cured with R86851, a phosphoric acid-water material of pH less than 1.0), and Carbozinc 11, a solvent borne ethyl silicate primer.

Site Description -

The Astoria exposure is in the back of the Maintenance yard, generally facing the new Youngs' Bay Bridge. After the first 2 months, three of the plates were used as weights to hold down a plastic cover for some concrete chunks in the yard.

The East Fremont specimens have generally easterly exposure. This site has been very hostile in that lime water from the approach, rocks and anything else dropped from the approach span falls on this area.

The West Fremont exposure is generally southerly. Rocks from the West approach span were dropping at first, but in general, the exposure is no more serious than the general Portland waterside exposure.

AVERAGE COATING THICKNESS MEASUREMENTS, IN MILS, ASTORIA SITE

	Date of Reading								
System	Nov. 24, 1971	Dec. 22, 1971	March 24, 1972	April 25, 1972	May 26, 1972	June 28, 1972	Aug. 22, 1972	Jan. 24, 1973	Net Change
RB									
191-2	3.9	3.8	3.5	3.4	3.5	3.5	2.9	2.7	-1.2
-3	4.6	4.8	4.3	4.1	3.8	3.9	3.7	3.5	-1.1
RB									
193-1-0	2.0	1.8	1.8	1.8	1.7	1.9	1.9	1.8	-0.2
1-x	1.9	1.8	1.8	1.8	1.8	1.8	1.7	1.6	-0.3
1-2x	2.1	2.2	2.0	2.0	2.1	2.1	2.2	2.2	+0.1
2-0	2.8	2.3	2.8	2.7	2.7	2.6	2.6	2.5	-0.3
2-x	2.6	2.8	2.5	2.5	2.5	2.5	2.3	2.4	-0.2
2-2x	2.6	2.6	2.5	2.3	2.2	2.3	2.8	2.6	-
3-0	2.9	2.7	3.0	2.9	2.8	2.8	2.8	2.4	-0.5
3-x	3.1	2.9	2.9	3.0	3.1	3.0	2.8	2.7	-0.4
3-2x	3.2	2.8	2.8	3.3	3.2	3.2	2.5	2.5	-0.7
GZ11-2	2.6	2.4	2.4	2.4	2.4	2.5	2.4	2.3	-0.3
-3	3.5	3.5	3.5	3.5	3.6	3.5	3.6	3.4	-0.1

AVERAGE COATING THICKNESS MEASUREMENTS, IN MILS, EAST FREMONT SITE

Date of Reading

System	Nov. 23, 1971	Dec. 22, 1971	March 27, 1972	June 28, 1972	Nov. 10, 1972	Jan. 23, 1973	Net Change
RB							
191-2	3.2	3.2	3.3	3.1	3.0	3.0	-0.2
191-3	4.8	4.5	4.1	4.2	3.6	3.5	-1.3
RB							
193-1-0	1.8	1.8	1.8	1.7	1.6	1.6	-0.2
1-x	1.5	1.5	1.6	1.5	1.4	1.3	-0.2
1-2x	1.8	1.6	1.6	1.6	1.6	1.5	-0.3
2-0	2.1	2.0	2.1	2.1	2.0	1.7	-0.4
2-x	2.2	2.1	2.1	2.1	1.8	1.8	-0.4
2-2x	2.4	2.5	2.3	2.2	1.6	1.6	-0.8
3-0	2.9	2.8	2.7	2.5	2.3	2.2	-0.7
3-x	2.9	2.8	2.9	2.9	2.9	2.6	-0.3
3-2x	2.8	2.6	2.7	2.7	2.3	2.2	-0.6
GZ11-2	4.2	4.4	4.3	4.0	3.3	3.2	-1.0
-3	6.0	6.0	6.1	5.8	5.0	4.9	-1.1

AVERAGE COATING THICKNESS MEASUREMENTS, IN MILS, WEST FREMONT SITE

Date of Reading

System	Nov. 23, 1971	Dec. 22, 1971	March 27, 1972	May 26, 1972	June 28, 1972	Aug. 21, 1972	Nov. 10, 1972	Jan. 23, 1973	Net Change
RB									
191-2	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.3	-0.1
-3	3.4	3.5	3.4	3.3	3.5	3.4	3.3	3.2	-0.2
RB									
193-1-0	1.9	2.0	2.0	1.9	2.0	1.9	1.8	1.8	-0.1
1-x	1.8	1.8	1.8	1.7	1.7	1.6	1.5	1.5	-0.3
1-2x	2.0	1.9	1.9	1.6	1.6	1.6	1.5	1.5	-0.5
2-0	2.7	2.5	2.8	2.3	2.4	2.3	2.2	2.2	-0.5
2-x	2.7	2.6	2.8	2.6	2.7	2.6	2.6	2.5	-0.2
2-2x	2.3	2.5	2.4	2.3	2.2	2.1	1.9	2.0	-0.3
3-0	3.1	2.9	2.7	2.8	2.7	2.4	2.4	2.4	-0.7
3-x	3.4	3.3	3.1	2.9	2.7	2.6	2.7	2.6	-0.8
3-2x	3.8	3.7	3.7	3.1	2.5	2.9	2.9	2.2	-1.6
GZ11-2	3.9	4.0	3.7	3.5	3.4	3.4	3.3	3.2	-0.7
-3	4.5	4.4	4.3	4.3	3.9	4.1	4.2	4.1	-0.4

Discussion of Data -

The readings were all taken by the writer. The value given are all averages of 5 readings taken one at each corner and one in the center of the plate. Some variation is noted, due to the slight variation of the point of reading. The general sites were kept constant. These samples exhibit slight rust at or near the edges where handling during priming caused reduced millage.

These data indicate zinc is a sacrificial metal, slowly giving up thickness to protect the steel. This was known all along. The losses are not greater than expected, and are inconclusive, which is the best conclusion we could have in this case. Further investigation should be given to the surface contaminants that have attacked the zinc. This would require terminating exposure, returning them to the lab and performing further lab tests on the panels, which I would recommend.

In conclusion, these data do not lend credence to the assertion that rapid deterioration is inherent with this type of primer in Portland exposures.

JOHN C. JENKINS
Engineer of Materials & Research

By Dean Mandrell

H. DEAN MANDRELL
Materials Testing Supervisor

HDM:eb

cc: W. J. Hart

WILLIAMS, MONTAGUE, STARK, HIEFIELD & NORVILLE, P.C.
ATTORNEYS AND COUNSELORS AT LAW
BOISE CASCADE BUILDING
PORTLAND, OREGON 97201
TELEPHONE 222-9966

DAVID R. WILLIAMS
MALCOLM I. MONTAGUE
DONALD R. STARK
PRESTON C. HIEFIELD, JR.
OLIVER I. NORVILLE
JAMES E. GRIFFIN
LARRY C. HAMMACK
RICHARD E. ALEXANDER

NOTED
H. S. COULTER

March 15, 1973

7310

Mr. A. E. Johnson,
Deputy State Highway Engineer
OREGON STATE HIGHWAY DIVISION
Highway Building
Salem, Oregon 97310

NOTED
A. E. JOHNSON

Ref: East Fremont Interchange
Units "A" and "B"
Contracts No. 7310 and 7311

Dear Mr. Johnson:

We have been provided a copy of your letter of March 12, 1973 with respect to the claim of our client, Drake-Willamette Joint Venturers, covering work performed on the East Fremont Interchange.

The purpose of this letter is to assure you that our client has been diligently working on the claim to be submitted but rather than submit the same on a piecemeal bases, we have requested of various subcontractors a detailed analysis of their claim so that it can be included with the claim of the prime contractor, Drake-Willamette Joint Venturers. Hopefully we will be able to have a refined analysis of the claim for presentation to you in the near future and in any event, we have marked our docket to give you a further status report at the end of this month if not sooner.

Our thanks for your cooperation in this regard.

Very truly yours,

WILLIAMS, MONTAGUE, STARK,
HIEFIELD & NORVILLE, P.C.

Preston C. Hiefield

PRESTON C. HIEFIELD, JR.

cc L. J. Linder
Earl Hunt
R. N. Bachman
C. T. Keasey
Robert Shotwell
3-16-73

PCH:cm
cc: John Gray

RECEIVED
STATE HWY ENGR
MAR 16 73
REFER TO
Coulter
FOR

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

7310

DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6348

RECEIVED
MAR 14 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

March 12, 1973

TRIAL DIVISION

JOHN E. MOORE
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS
JAMES P. CRONAN, JR.
QUINTIN B. ESTELL
LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN R. MC CULLOCH
FRANK C. MC KINNEY
EARL M. PRESTON
R. KEN ROBERTS
JIM G. RUSSELL
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA H. SORENSEN

ASSISTANT ATTORNEYS GENERAL

NOTED
E. S. HUNTER

RECEIVED
STATE HWY ENGR
MAR 13 '73
REFER TO
Hunter
FOR
Info | Invest | R/D | D/R | Sign | Act | File

NOTED
A. E. JOHNSON

Mr. Vern K. Cusack
Acting Division Engineer
Federal Highway Administration
P O Box 300
Salem, Oregon 97308

Attn: Charles J. Mathias

Re: State Highway Commission vs.
Oregon-Washington & Navigation Co.
Case No. 379-083 (L-6682 R-36087)

Dear Mr. Cusack:

As you know, the State is acquiring easements from the Union Pacific Railroad for the elevated bridge structure and supporting piers at the east end of the Freemont Bridge. The State offered $213,600 for the interest being acquired. The defendant railroad has filed an answer pleading just compensation at $816,423. The case is pending in the circuit court for Multnomah County.

The construction of this improvement over the defendant's property commenced under the terms of a permit of entry. That document includes mutual limitations covering the nature of the state's construction and maintenance, and also the limitations placed on the defendant railroad in its utilization of the easement areas, including limitations on the types of buildings to be placed under the bridge structure. The limitations in the permit of entry were approved by the U. S. Bureau of Public Roads. The limitations were incorporated into the complaint filed in this proceeding. I enclose herewith for your information a copy of pages 4 and 5 of the amended complaint that includes the said provisions.

The defendants desire a modification of the restrictions in the use of the easement areas. Their proposal was presented to the State at a meeting attended by Jack L. Sollis and T. W. Litchfield on behalf of the State, Union Pacific Railroad officials and their attorney, James L. Bergmann, and at the State's request, the city fire marshall and chief

building inspector. I forward herewith a copy of defendant's proposed modifications. These were approved by Mr. A. E. Johnson, deputy state highway engineer, at a meeting in his office on March 9, 1973.

Basically, the desired changes are for two basic purposes. The first would remove the restrictions that office buildings be limited to an occupancy load of 30 or less. The second would allow the construction of warehouse buildings in the easement areas. Such warehouse buildings are still subject to the limitations of paragraphs (3), (4), (5), (6) and (7). Moreover, at the suggestion of the city fire marshall, additional fire protection provisions were added in connection with the warehouse buildings.

The general impression of Mr. Litchfield, Sollis and the undersigned is that the Union Pacific Railroad Company is not particularly interested in litigating this acquisition in court. They may want to rebuild a smaller warehouse for National Carloading to replace the one taken by this proceeding. It is hoped that a modification of the building restrictions will be of substantial assistance in settling this case. In any event, the modification would substantially reduce any argument that the remaining railroad property is damaged by this taking.

Please review defendant's proposed modifications and hopefully approve them for federal participation in this acquisition.

Very truly yours,

LEE JOHNSON
Attorney General

Leslie B. Hampton
Assistant Attorney General
Trial Division

LBH:gb
Enclosure

cc: A. E. Johnson
Robert N. Bothman
Walter J. Hart
James E. Chidsey
T. W. Litchfield
Jack L. Sollis

PROPOSED REVISED LAND USE RESTRICTIONS
(paragraphs numbered to correspond to paragraph III of Amended Complaint)

A. In conducting their operations in the easement area, defendants, their successors, legal representatives and assigns shall not:

1. Construct any buildings or structures that do not meet the Building Code of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

(a) All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except groups E-1, E-2, E-3, F-1, F-2, F-3 and F-4; provided further, the following types of occupancy shall be permitted, subject to any qualifications specified:

(1) Undertaking parlors, municipal police and fire stations will be allowed.

(2) Office buildings will be allowed, provided that office buildings of two stories or more shall be of Type I or II construction and shall be equipped with an approved fire sprinkling system.

(3) Warehouse buildings may be constructed, provided:

(i) Walls and roof are constructed of fire resistive (1 hour rated) material;

(ii) Openings (e.g., windows and doors) under the bridge and for 50 feet beyond are protected with approved fire resistive assemblies; and

(iii) The building shall be equipped with an approved fire sprinkling system.

(4) Transient warehouses may be constructed, provided:

(i) Walls and roof are constructed of fire resistive (1 hour rated) material;

(ii) Windows, doors and other openings except bay doors are protected with approved fire resistive assemblies;

APPROVED
DEPUTY STATE HIGHWAY ENGINEER
Date 3-9-73

(iii) Bay doors shall be constructed of steel and equipped with an automatic closing device activated by fire responsive detectors; and

(iv) The building shall be equipped with an approved fire sprinkling system.

(b) Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

(c) Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures except railroad tracks may be constructed and operated adjacent to said piers, provided the ties under the tracks are not closer than 5 feet to the exposed portion of the pier. (END OF THE)

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any ~~inflammable~~ (HIGHLY FLAMABLE), volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes, vapor or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

7310

March 12, 1973

Drake-Willamette, Joint Venture
1740 N. W. Flanders Street
Portland, OR 97209

Gentlemen:

East Fremont Interchange
Units "A" and "B"
Contracts No. 7310 and 7311

For a considerable length of time we have been studying the effect of various paint problems and have been in communication with the Federal Highway Administration. We have been advised by the Federal Highway Administration that it is unable to come to any conclusions without the contractor's specific claims.

On February 6, you were urged to submit all of your claims in connection with paint-related problems. In order that we may proceed with a settlement, it is requested that all of your claims be submitted as soon as possible.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

AEJ:ja

cc Vernon V. Cusack
Acting Division Engineer
Federal Highway Administration

bc F. B. Klaboe
H. S. Coulter
L. I. Lindas (We will leave it up to you to
Walt Hart advise Mr. Franzke.)
R. N. Bothman
V. E. Skoog
R. O. Cunningham
Robert Shotwell
John Howard

7310

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
LAW DEPARTMENT

RANDALL B. KESTER
GENERAL SOLICITOR

L. JAMES BERGMANN
JOHN F. WEISSER, JR.
GENERAL ATTORNEYS

ALLARD J. HEITKEMPER
CHARLES N. ISAAK
ASST. GENERAL ATTORNEYS

ROBERT E. WALKLEY

628 PITTOCK BLOCK
PORTLAND, OREGON 97205

503 288-6221

March 12, 1973

7758

Mr. A. E. Johnson
Asst. State Highway Engineer
Oregon State Highway Division
State Highway Building
Salem, Oregon 97310

Re: Project No. I-405-8(22)304
(Fremont Bridge, Portland)

Dear Mr. Johnson:

Pursuant to telephone request of Mr. Sollis on March 9, and supplementing my letter of February 7, 1973 addressed to Mr. Leslie B. Hampton, I attach copies of letters dated February 20 and 21 from City of Portland Fire Marshal James R. Kerr and Chief of Permit Division Albert Clerc, respectively, commenting on the proposed revised land use restrictions which were attached to my letter of February 7.

I concur that Fire Marshal Kerr's suggested revision is appropriate, and I attach a set of revised land use restrictions in which the suggested change has been made in item 4 on page 2. I understand that you will submit these requested changes to the FHA for its approval.

Very truly yours,

RANDALL B. KESTER

By L. James Bergmann

LJB/nr
Enclosures

cc: Mr. Jack L. Sollis
Mr. Leslie B. Hampton
Mr. G. E. Chidsey
(Files L-6682 R-36087)
(w/c of enclosures)

3-15-73
A. E. JOHNSON

RECEIVED
STATE HWY ENGR
MAR 14 '73
REFER TO
FOR
Info | Lives | R/D | D/R | Sign | Act | File

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

7310

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon
Attn: Mr. A. E. Johnson

DATE: February 28, 1973

In reply refer to: 10-35.6

FROM : Vernon V. Cusack, Acting Division Engineer
Salem, Oregon

NOTED
H. S. COULTER

#7214

SUBJECT: Oregon Project I-405-8(20)303 and
I-405-8(22)304 - #7310 & #7311
Fremont Bridge Approaches
Paint Claim

We have received word from our Regional Counsel on his review of the Saroyan report and the Canron Limited description of the difficulty encountered on the paint application of Fremont Bridge Interchange superstructure.

It should be pointed out that this myriad of information deals only with the subcontractor's problems with meeting the specifications, and there is no indication as to what type or amount of claim the prime contractor may make. Further, it is noted that the State has not given their analysis, engineering and legal, as to the propriety of the subcontractor's claim.

Our review indicates that the subcontractor appears to be entitled to an equitable adjustment. The specifications, in the view of the expert hired by both sides (John R. Saroyan), were defective and could not achieve the desired results; thus, the State would be subject to liability as drafter of the specifications. This does not exlude the possibility that there may be certain responsibilities accruing to Canron Limited.

It is difficult to come to any conclusion without the contractor's specific claim and the respective support. This information must be submitted to evaluate the validity of the claim. We feel that it is necessary for the State to document their position in a similar manner to the Canron Limited submittal. Until this is accomplished Federal Highway Administration is not in a position to approve or disapprove any adjustment.

cy. Finney
Coulter
Hart
Boehne
Lewis

	Info	FOR	REFER TO	MAR 1 '73	RECEIVED STATE HWY ENGR
	Inves				
	R/D				
	D/R				
	Sign				
	Act				
	File				

RECEIVED
MAR 5 1973
Office of Assistant State Highway Engineer

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

cy. acj -

GPO 917-544

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
222 S. W. Morrison St.
Portland, Oregon 97204

RECEIVED
FEB 26 1973
LEGAL

7310

February 23, 1973

IN REPLY REFER TO
10-00.11

Genl files ✓

NOTED
A. E. JOHNSON

Leonard I. Lindas, Esq.
Assistant Attorney General
& Counsel
408 State Highway Building
Salem, Oregon 97310

#7310 copy returned

#7314

Re: Oregon I-405-8(20)303; I-405-8(22)304
Fremont Bridge Paint Problem

Dear Leonard:

This is pursuant to our conversation of February 20, 1973 relative to Mr. Franzke's letter of February 14, 1973. As indicated, this office as well as our Regional Bridge Division reviewed the documentation previously submitted by Mr. Franzke on behalf of Canron Limited.

On February 14, 1973, we advised the Oregon Division office that from the material submitted it appeared the State would under the contract be liable to Canron Limited as a result of the defective specifications. This does not exclude responsibility on the part of the subcontractor for any errors, etc., attributable to their work. It should be emphasized that the Regional review was based only on the documents submitted, largely by Canron.

Since there has been no claim by the prime for the sub nor itself, it appears we are operating in a partial vacuum. As you know, in cases such as this Federal-aid participation is normally based on a request by the State fully documented as to the action they have taken or desire to take. At this time it is my understanding that the Division office has not received a request from the Highway Division for Federal-aid participation. It may be that the Highway Division or our Division office may have additional facts which would alter our previous opinion. Thus, until

engineering and legal documentation justifying a proposed or consummated course of action is submitted, Federal Highway Administration can take no action.

In the event you feel a meeting on this would be desirable, please advise.

Very truly yours,

ROBERT B. RUTLEDGE
Regional Counsel

cc: David E. Wells w/Franzke's 2/14/73 letter
Vern Cusack w/Franzke's 2/14/73 letter
Roy Tokerud w/Franzke's 2/14/73 letter

7310

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO V. V. Cusack, Acting Division Engineer
Federal Highway Administration

DATE February 21, 1973

FROM L. H. Young
Office Engineer

Federal-aid Project
No. I-405-8(22)304

SUBJECT Request Change Order Approval

Contract 7310, State Force No. 17

Project East Fremont Interchange, Unit "A"

Highway Stadium Freeway

County Multnomah

The Order covers the State forces welding the manhole covers to the frames. It is in the public's interest for State forces to perform this work as a safety measure to prevent vandals from removing the covers and throwing them off the bridge onto the streets or tracks below and also because the contract work has been completed by the contractor and his forces are no longer on the project.

This work conforms to the requirements of PPM 21-6.2 as required for Federal participation. The estimated total cost of the work to be done under this order is $580 with Federal participation of $522. Reimbursement on an actual cost basis is requested.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on February 8, 1973.

Your approval as of February 8, 1973 is requested.

Attach.

JK:pr

S

7310

February 6, 1973

Drake-Willamette, Joint Venture
1740 N. W. Flanders St.
Portland, OR 97209

orig. in #7214

Gentlemen:

We understand that you are withholding payment of Canron's retainage on the basis of a purported statement by Mr. Edwards that the failure of the zinc primer was the responsibility of Canron. We have made an exhaustive investigation of the problem and now advise you that we are unable to determine at this time the responsibility of failure.

In a letter dated December 19, 1972, to Robert Shotwell from your attorneys, it is implied that claims in connection with the East Fremont Interchange, Units "A", "B", and "C", will be presented. Until these items are presented in detail, it will be impossible to consider any claims.

I would urge you to submit as soon as possible all your claims in connection with your projects.

Very truly yours,

F. B. Klaboe
State Highway Engineer

cc A. E. Johnson
Scott Coulter
Walter J. Hart
R. N. Bothman
L. I. Lindas
V. E. Skoog
Robert Cunningham
AEJ:ms

36087 S
L 6682
Railroad 603

UNION PACIFIC RAILROAD COMPANY

REAL ESTATE DEPARTMENT

L. T. MONACO
District Real Estate Manager

PITTOCK BLOCK
921 S. W. WASHINGTON
PORTLAND, OREGON 97205

January 29, 1973
27620

7310

RAILROAD COMPANIES
FILE No. 603

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Attention: Mr. T. W. Litchfield
Railroad & Utility Engineer

Gentlemen:

Enclosed for your records is your fully executed counterpart of extension rider covering license to make instrument surveys - proposed Fremont Bridge, Portland, Oregon, our Dept. No. 27620.

Yours very truly,

L T Monaco

RECEIVED
FEB - 2 1973
UTILITY UNIT

S 6

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

TRIAL DIVISION

JOHN E. MOORE
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH D. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS
JAMES P. CRONAN, JR.
QUINTIN B. ESTELL
LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN R. McCULLOCH
FRANK C. McKINNEY
EARL M. PRESTON
R. KEN ROBERTS
JIM G. RUSSELL
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA H. SORENSEN
ASSISTANT ATTORNEYS GENERAL

DEPARTMENT OF JUSTICE
~~100 STATE OFFICE BUILDING~~
SALEM, OREGON 97310
TELEPHONE: (503) 378-6348

408 State Highway Building

7310

January 26, 1973

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STATE HWY ENGR
JAN 26 '73
REFER TO
FOR
Info | ives | R/D | D/R | Sign | Act | File

Phillip G. Kaplan
Blumenfeld, Kalishman, Marx & Tureen
Attorneys at Law
130 South Bemiston Avenue
Clayton, Missouri 63105

NOTED
A. E. JOHNSON

Re: Fremont Bridge Paint Correction - Klaas Bros.

Dear Mr. Kaplan:

With reference to your letter of January 22, I am informed that the prime contractor for the east approach to the Fremont Bridge has been paid. The prime contractor for the center span has been paid for the painting completed to date, except that this Division is now in the process of negotiating a price agreement involving a change in the vinyl paint being used. The prime contractor for the west approach has been paid, except he has not signed a price agreement pertaining to a change in the vinyl paint.

The foregoing information comes from Walter Hart, Bridge Engineer for the Division.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas

L. I. Lindas
Assistant Attorney General
and Counsel to Highway Division

LIL:hg

cc - F. B. Klaboe
A. E. Johnson
Walter Hart

RECEIVED

Gen. Lilles

RECEIVED
STATE HWY ENGR
JAN 22 '73
REFER TO
FOR
Info | Invest | R/E | D/R | Sign | Act | File

OREGON STATE HIGHWAY DIVISION

7210

January 19, 1973

NOTED
A. E. JOHNSON

Mr. Donald J. Howe
Assistant Attorney General
Department of Justice
Salem, Oregon 97310

Re: Fremont Bridge Painting

Dear Mr. Howe:

Attached is a summary of climatic and air contamination readings for the period September 1970 through May 1971 at Portland, Oregon, Vancouver, B.C., and Richmond, California. These summaries were compiled from governmental records for the individual locations.

Vancouver, B.C. and Portland experienced similar climatic conditions during the period Vancouver had less total precipitation during the period, but had a slightly higher average relative humidity. Vancouver's average temperature was also less than Portland's. The higher humidity and the lower average temperature would both be detrimental to the paint system used on the Fremont approaches.

The average air pollution as measured by SO_2 readings for Portland and Vancouver was very close to being the same.

A comparison of Portland and Richmond, California, where the Fremont main span was fabricated and painted, shows that the average temperature in Portland was lower and the total rainfall was much higher than Richmond. The air pollution in Richmond was considerably less than Portland. All of these factors would tend toward a better environment for paint application in Richmond than in Portland.

From the data summaries, I would conclude that any claim that the poor environment in Portland caused the failure of inorganic zinc primer in Vancouver would be invalid. The environment in Portland is no worse than Vancouver, in fact, is some better. Also, if the poor environment in Portland would cause the total failure of the inorganic zinc, on the work done in Vancouver, why then did it not cause the total failure of the inorganic zinc primer on the work done in Richmond?

I hope this has been helpful to you. If there is any additional information you need, please contact us.

Yours truly,

GEORGE M. BALDWIN
Administrator of Highways

By

J. E. CHIDSEY
Structural Quality Control Engineer

Attachment

JEC:eb

cc: A. E. Johnson
Walt Hart
Leonard Lindas

Form E49x
GP-86722-734

OREGON STATE HIGHWAY DIVISION

TABULATION SHEET

SHEET ..... OF ..... SHEETS

	Portland City Averages				Richmond Averages			Vancouver B.C.			
	Temp	R.H	Precip	Departure from Norm	Temp	Precip	Departure from Norm	Temp	R.H	Precip	Departure from Norm
Sept 70	61.7°	61%	1.83"	+0.09"	62.3°	—	—	54.7°		2.95"	+0.85
Oct	55.2°	70%	3.04"	-0.85"	60.4°	1.00"	—	47.4°		2.58"	-2.04
Nov	48.5°	75%	7.60"	+1.56"	58.1°	7.01"		41.3°		3.46"	-1.98"
Dec	41.5°	84%	10.24"	+2.82"	49.5°	6.29"		37.2°		6.61"	+0.17
Jan 71	41.9°	85%	9.18"	+2.84"	50.6°	2.19"		35.8°	86%	8.28"	+2.76"
Feb	44.3°	79%	5.35"	+0.45"	52.9°	0.23"		39.3°	82%	5.59"	+0.35"
Mar	45.4°	72%	5.96"	+1.18"	54.0°	2.26"		39.9°	74%	6.29"	+2.53
Apr	52.0°	67%	3.35"	+0.90"	55.8°	0.88"		46.7°	70%	1.99"	-0.31
May	58.4°	65%	1.14"	-0.91	57.8°	0.08"		53.2°	73%	1.67"	-0.25
				Dev from Norm					Avg 5		
Ave	49.9°	73%	5.30	8.08"	56.2°	2.22"		43.9°	77%	4.38"	+2.58°
Total			47.69°			19.94				39.45	

Form E-49

OREGON STATE HIGHWAY DIVISION

TABULATION SHEET

SHEET ..... OF ..... SHEETS

24 hr Monthly SO_2 Ave from Sept 70 - May 71

	Portland				Richmond				Vancouver		
	Min	Max	Ave		Min	Max	Ave		Min	Max	Ave
70 Sep	0.001	0.017	0.005			0.024	0.009				0.020
Oct	0.001	0.052	0.016			0.024	0.007				0.015
Nov	0.001	0.055	0.023			0.020	0.009				0.020
Dec	0.006	0.073	0.027			0.016	0.006				0.015
71 Jan	0.008	0.084	0.032			0.045	0.014				0.019
Feb	0.002	0.052	0.019			0.033	0.011				0.022
Mar	0.001	0.045	0.016			0.019	0.004				0.022
Apr	0.001	0028	0.015			0.009	0.002				0.022
May	0.001	0.032	0.007			0.002	0.006				0.014
Ave.			0.018				0.008				0.019

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FOR FILING

5

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO G. L. Green, Division Engineer
~~R. E. Simpson, Division Engineer~~
Federal Highway Administration

DATE January 4, 1973

Federal-aid Project No. I-405-8(22)304

FROM ORIGINAL SIGNED BY R. D. ASSUMMY

L. H. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7310 Extra Work Order No. 10 supplement #1

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This order covers the additional cost to complete the repair to the damaged zinc primer on the steel girders as called for by the original order. Additional work is required above the original estimate due to access to the exterior surfaces not being available when the original order was prepared. The original order was approved by your office effective April 12, 1971.

Copies of the engineer's letter of explanation are attached.

This work was tentatively recommended for approval by the Federal Highway Administration Assistant Area Engineer effective April 12, 1971, approval date of the original order.

Your approval as of April 12, 1971 is requested.

Attach.

BMW:dgk

.5

RECEIVED
JAN 5 - 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE January 4, 1973

TO R. L. Simpson, Division Engineer
Federal Highway Administration

Federal-aid Project No. I-405-8(72)304

FROM ORIGINAL SIGNED BY R. D. ASBURRY

L. H. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7310 Extra Work Order No. 9 supplement #1

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This order covers the additional cost to complete the work called for under the original order. Additional field drilling and reaming and temporary strutting of the ring post splices was necessary which was not anticipated when the original order was prepared. The original order was approved by your office effective February 26, 1971.

Copies of the engineer's letter of explanation are attached.

This work was tentatively recommended for approval by the Federal Highway Administration Assistant Area Engineer effective February 26, 1971, approval date of the original order.

Your approval as of February 26, 1971 is requested.

Attach.

BIW:dgk

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DEC 21 1972
FOR FILING
UTILITY FILE

OREGON STATE HIGHWAY DIVISION

NOTED
A. E. JOHNSON

7310
HIGHWAY BUILDING • SALEM, OREGON • 97310 378-6511

December 15, 1972

Union Pacific Railroad Company
P.O. Box 8979
Portland, OR 97208

ATTENTION: Mr. T. P. Rogers

RE: Excess Cost for Power Service
East Freemont Interchange Section
Stadium Freeway
Multnomah County
Project No. I-405-8(22)304
Contract No. 7310
Your File: D 9010-32-17
(Spcl.)

Gentlemen:

This is in reply to your letter dated September 29, 1972, and your bill No. 19214 dated October 9, 1972, in the amount of $3,618.33, for the cost of power service over and above your normal cost due to the special electrical service which you elected to accept in lieu of burying your existing service line to accommodate the construction of the above-captioned section.

In your letter dated June 24, 1970, you indicated that you were unable to make the power line relocation as originally planned with railroad forces. You selected the alternative of securing a separate service from the Portland General Electric Company from Randolph Street. At that time, the additional cost for power consumption was not discussed or considered in the economics of approving this alternate plan. The alternate plan was approved by the State and the Federal Highway Administration on the basis that it would not exceed the original estimate of $3500, which was included in your letter dated October 22, 1969.

It is our opinion that the election to have temporary service provided from a different source was made by the railroad with the understanding the State would bear the expense of the installation and the removal of the service. The higher unit cost for energy used from this source was not discussed, and had it been known that this cost was in excess of $3000, the State would not have approved this temporary installtion. In as much as no agreement with regard to the payment for the additional cost charged by PGE for this service was reached in advance, we cannot agree to pay your bill in the amount of $3,618.33 for the expense of electrical power over and above normal cost for the period of June 23, 1970 through September 11, 1972.

Very truly yours,
ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Railroad and Utility Engineer

bc: G. L. Green
A. E. Johnson
L. H. Young
H. S. Coulter
R. E. Shotwell
Jack Hesla

TWL:jly

RECEIVED
DEC 18 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

RECEIVED
DEC 19 1972
FOR FILING
7310

cc- Walt Hart
Br. Dept
12-12-72

COPY TO Jenkins
11-22-72
with excerpts from
Saroyan's Report

12-13-72

FREMONT PAINTING

Comments On The 10-5-72 Letter From Saroyan

NOTED
A. E. JOHNSON

1 - Yes - This will also help avoid bubbles (air pockets).

2 - We cannot use Red Lead after January 1, 1973 (Environmental Problems).

3 - We have had some adhesion problems, but not in sheets.

4 - Note page 2, all commercial test panels would be a failure as far as field use is concerned, and we know that we have to have a suitable anchor pattern for adhesion (the paper by Mr. Saroyan is duly noted).

5 - We would normally follow all points but No. 5. The other 4 points are normal paint practice with this type paint, If No. 4 is the manufacturers recommendation.

6 - Yes - This is the way we painted the last trusses at Fentron, as painting a car with laquer, fine spray thin coats made a smooth job with very little over spray (what we had could be easily removed).

7 - One-half to 1 mil per year under direct and continuous water exposure! (How much is considered direct exposure?)

8 - This information is in any book on inorganic paint but does not answer the question. This is only what can happen. No. 7 more closely answers the question if we remember that some of the materials were probably never, or seldom, in contact with much moisture (surely not enough to wash away the zinc sulphate salts which may have formed and if left would tend to afford some protection or retarding of further deterioration.

RECEIVED
DEC 13 1972
OFFICE OF
A. E. JOHNSON

MORE

9 - Note 5 and 6. If we can apply no more than 1 mil dry for good adhesion, then why 2-3 mils here? Is 80 K.U. thin enough to apply 1 mil?

10 - Note 7. One-half to 1 mil per year if exposure to moisture is continuous. Some steel was protected most of the time. Even under the worst conditions listed, if we had the required 3 mils minimum, it would take from 3 to 6 years for rust to break out. This is <u>if</u> the paint was applied properly and the second reaction, <u>B</u>, was allowed to happen (3 mils minimum paint film over the peaks of the profile).

11.- A scientific statement - some of the "lucky" areas are on the same piece and under the same conditions as the "unlucky" area next to it. I think the "lucky" areas were the ones that had an honest coat of primer applied over a good clean anchor pattern.

12 - Question: Would the residues from the curing agent be gone by the time 2-1/2 to 3 mils of primer deteriorates? We had freckling through, or in, the film with no visible disturbance of the applied paint film or curing agent residue.

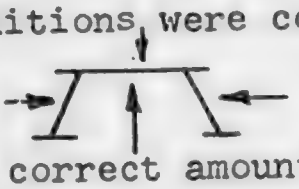
13 - I don't see where this has any bearing on the question. This deals with unpainted steel with remnents of sand in the valleys of the deeper profile which could attract moisture, etc. We are dealing here with a paint film which supposedly covers the profile completely. Undoubtedly, most of our steel had shattered grit or shot materials left in the valleys at the time of painting.

MORE

14 - Was this the case? Agitated?

15 - "Sacrificial" or "cathodic" protection may be cause for some loss of zinc as we had large areas of rust stains. Also, if the paint film had residues or areas where the metal abrasives got into the wet film, there would be some loss.

16 - In the Portland area, at a 50° to 70° temperature range, we have probably averaged 2-1/2 mil dry thickness per coat with carbozinc 11. This is not with artificially controlled conditions.

17 - I don't think the conditions were controlled as stated! If the beams were painted as  then with one coat, 1 and 2 mils dry would be the correct amount of film thickness to expect. One mil painting up and inside, and two outside, with a more porous coat inside.

18 - This was not the case. It was more like paint distribution failure which would include porosity in the paint film from improper application.

19 - A large percent of the paint was not subjected to water attack except as humidity, so there was a minimum washing action. The residues of the curing agent were still on the film which indicates that the beams had not been subjected to a washing action during shipment or storage. The measurements taken by Ed Rief and Bill Bangert at intervals of several months using the Banana, Tooke, and Elcometer Gauges indicated no recordable loss of film thickness.

MORE

20 - See 12 and 13.

21 - It is our opinion that the major factor was in application, not atmosphere; but our inspection agency at Conran's plant accepted the paint.

22 - The problem would not have been eliminated by a seal or top coat, only delayed or hidden, as we would still have less protection than we were paying for.

Ed J. Rief
Dist. Insp. Engr.

EJR:ljp

B. Question

Generally, comment on the advisability of:

1. Putting vinyl directly over zinc.

Answer

Before applying vinyl over the inorganic zinc coating, the surface must be free of any white deposits resulting particularly from post cure agents. The white deposits should be removed by high pressure fresh water rinse. Mechanical scrubbing should also be used if necessary. (1)

For inorganic zinc coatings that have been approved under MIL-P-23236 or under Naval Ships Technical Manual, Chapter 9190, and properly washed of the white deposits, a thin coat, maximum 1 mil dry film, of red lead vinyl, Formula #119 (MIL - P - 15929) is applied as a tie coat. (2)

Although the above practice has resulted in some satisfactory applications, where #119 has served as a tie coat, promoting good adhesion between the inorganic zinc primer and the topcoat or finish coat of vinyl, there have been some classical failures. Vast sheets of vinyl have peeled off the inorganic zinc primer. (3)

An analysis of the conditions that promote good adhesion and those that induce and cause poor adhesion and peeling, when #119 is used as the tie coat, have been studied microscopically. The attached three color slides (photomicrographs) show the surface contour or profile of cured inorganic zinc coatings. The surface of Rust-Ban 191 as shown in the slide, is only slightly rough. The slide for Rust-Ban 190 shows a rather smooth surface. In contrast, the profile for the experimental B-3 inorganic zinc coating is very rough and porous. (4)

Loss of adhesion of topcoats using vinyl #119 as a tie coat can be explained by identifying the surface profile of the inorganic zinc. If the surface is relatively smooth, adhesion must be derived from chemical bonding. Hence, with a tie coat such as #119, there is insufficient chemical adhesion. If the #119 is applied too thick, there develops a coating with high cohesive strength and in incidents of stress (thermal shock, etc.) is prone to exhibit poor adhesive strength. Also, if the #119 is applied thin, perhaps necessitating the addition of extra solvent, penetration of the #119 into the porous inorganic zinc can occur. Here, besides being functional as a tie-coat, the thinned #119 can serve as a seal coat. Incomplete contrast, when the inorganic zinc profile is rough, the surface per unit area is increased considerably and mechanical adhesion is promoted. This is a direct corollary to improving adhesion by abrasive blasting a surface.

The following experiments were conducted in regards to surface profile of inorganic zinc coatings top coated with vinyl #119 and immersed in brackish water for 3 months*:

*"Inorganic Zinc Coatings in the U. S. Navy" by John R. Saroyan, presented at the National Association of Corrosion Engineers, Western Region Conference, Phoenix, Arizona, 28 October 1964.

B. Question

Generally, comment on the advisability of:

2. Using 5 mils of hi-build vinyl in one coat (viscosity over 125 KU) (6)

Answer

The disguise of a single thick coat versus multiple coats as being more economical has been the theme of recent "sales pitches" as a cost-reduction devise through labor savings. This is still controversial matter now and in some governmental circles (Navy) such a criterion cannot be used when bidding on paints. Only what is in the container and not the way it is applied or any other alleged cost savings can be reflected in the bid price.

As discussed in the previous question, B-1, to obtain good adhesion of vinyl over inorganic zinc, a thin coat, a mil or less dry film, must be applied.

From attachment #8, under multiple coats, the following additional criteria are discussed:

1. Multiple coats, of varying colors, should be used to obtain complete, uniform coverage.

2. For coatings that contain solvent, multiple thin coats rather than fewer thicker coats permit the maximum release of solvent.

Summary

Generally, using 5 mils of hi-build vinyl in one coat on inorganic zinc is not advised. Loss of adhesion can result. Also, there can be uneven varying applications with runs and sags or orange peel roughness. Y

6.5 to 10.0 pH

Less than 0.4 neutralization number

Less than 300 PPM hydrogen sulfide content. (Hydrogen sulfide, like SO_2, will also react with zinc.)

Summary

(8)

It is apparent, from the above information, that a content of SO_2 in the atmosphere can quickly dissolve zinc in the inorganic zinc coating. The sulfurous acid, oxidized to sulfuric, reacts to form zinc sulfate. With condensations of moisture and rains, the very soluble zinc sulfate salts wash away, exposing new layers of inorganic zinc coating for SO_2 attack. Since the coating (inorganic zinc) is 85% by weight zinc, the film is also destroyed as the SO_2 "eats" away at the zinc. Also the SO_2 can react with lithium silicate or any of the lithium compounds, again forming soluble sulfates.

D. Question

Your comments on an acceptable system. Is the following system sufficient?

Primer - Inorganic zinc - ethyl silicate (3 mils)
Stripe coat - Organic zinc (epoxy)

Vinyl wash primer (#117)
Vinyl Hi-build 80ku (3 mils) first coat
Vinyl Hi-build 80ku (3 mils) second coat

Answer

The above coating system appears to be somewhat complicated in respect to the so-called "stripe-coat" followed by the wash primer, #117.

A complete system which is quite classical is the following:

1 - Primer - inorganic zinc, ethyl silicate
2 - Vinyl wash primer, #117
3 - Vinyl hi-build first coat
4 - Vinyl hi-build second coat

Returning to the "stripe coat", organic zinc epoxy, there seems to be a redundancy. It is known to the art that zinc rich primers may be of the inorganic binder type or organic binder type and mixtures (some organic binder in the inorganic) these latter hybrids can contain polyvinylbutyral, for example, in with the ethyl silicate binder, using alcohol as the common solvent.

It doesn't appear necessary to apply an organic zinc epoxy over an inorganic zinc (ethyl silicate). Obviously, "anything can be done," but the logic of the coating system proposed is not self-evident. It would be more conventional to use instead a "normal" epoxy coating over the zinc-ethyl silicate.

Summary

The following coating systems are derived from the 5-coat system reviewed and proposed above; these systems are recommended instead:

(9)

	Dry Film
(A) Inorganic zinc-ethyl silicate	3 mils
Vinyl wash primer #117	0.5 - 0.75 mils
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils
(B) Inorganic zinc-ethyl silicate	3 mils
Epoxy primer - thinned, Mil-P-23236 or Navy 9190. Limited cure time so as to receive vinyl hi-build	1 mil (Max)
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils

E. Question

Is Portland, Oregon's winter atmosphere deleterious to a water based inorganic zinc primer without a seal coat?

Answer

As previously reviewed under Question A-6 and A-9, for Rust-ban 191 (and 193) to cure the lithium silicate binder must be insolublized. In the atmosphere, with some humidity, the following reaction takes place:

a. Li_2SiO_3 + $2H_2O$ = $2LiOH$ + H_2SiO_3

Lithium Silicate — Water — Lithium Hydroxide — Silicic acid

Then for curing to take place, the silicic acid has to dehydrate as indicated below:

b. $H_2SiO_3 \xrightarrow{\text{Dehydration}} H_2O + SiO_2$

SiO_2: Silicon Dioxide or Silicic Acid Anhydride

This over-simplification is not intended to detail the other complicated reactions that take place to form the complex iron-zinc silicate.

If the second reaction (b) or others which form the insoluble complex silicates, is not possible, then water soluble ingredients such as lithium silicate, lithium hydroxide, etc. can easily be washed away by rain or other condensation.

Besides the moisture which can be deleterious to such inorganic water base zinc coatings, there is the aggressive sulfur dioxide content of the winter atmosphere. The following SO_2 content was recorded in Portland, Oregon during Jan.-Mar. 1971:

	SO_2
January 1971	78.6 $\mu g/m^3$
February 1971	60 $\mu g/m^3$
March 1971	48.6 $\mu g/m^3$

As discussed in Question "C" above, these amounts of SO_2 along with moisture can be very deleterious to the inorganic zinc coating.

Summary

(10)

With the winter environment at Portland, Oregon identified as to high moisture, rain and SO_2 content, any inorganic water based zinc primer without a seal (sealer) or top coat will show definite increase in rate of diminishing of the coating film thickness, with rust finally breaking out in the damaged or deteriorated areas.

Also, it has to be postulated that the reason a certain member or area looks good, is because it was "lucky" since the aggressive environment didn't get to it yet.

(11)

G. Question

If your answer to "F." is yes, what evidence should there have been on the girders to indicate a residue.

(12)

Answer

The soluble sulfates normally would not form dense or ample white deposits like those formed when curing agents are applied over the Rust-ban inorganic zinc primer. Any surface sulfate would probably be washed away by rain or/other condensations. Probably, fresh water washes and recovery of several of such washes would permit chemical identity of the presence of sulfate.

H. Question

Would use of small test panels be indicative of reaction of paint on large panels?

Answer

In my studies relating to surface profiles of abrasive blasted surfaces and corrosion, the following observations have been made:

A small test panel 4" x 6" x 1/8", was divided into four equal areas and sandblasted with different sieve size abrasives such that four profiles were obtained. Also these studies included the occlusion of shattered sand within the valleys and the effect of this on corrosion.

The prepared panel was layed flat on a laboratory work bench and subjected just to the laboratory environment. In about two days, corrosion was observed on the panel. The sequence of corrosion and amount was directly proportional to the roughness of the surface, thus exposing more surface per unit area, and the amount of occluded sand particles in the depressions. (13)

It is thus demonstrated, that even on the same panel, the environment can act differently on the various areas. It follows, two panels of identical size with some surface differences will perform differently when subjected to an exposure or environment.

A classical example of my experience is the varying performances of two identical 10" x 12" x 1/8" mild steel panels, spray painted identically, with the same continuing spray passes, and immersed in sea water side by side performed differently.

Now going to two size panels, the variations can be further amplified. A test panel (small) versus a steel girder obviously would present a case of two distinctly different surfaces.

In the first instance, the mass of the two surfaces is vastly different. This means the heat capacity of the two would vary greatly. The panel would heat up and cool off rapidly. The steel girder would heat and cool slowly. A pool of water, for example, would evaporate at different rates from the panel and girder. This would result from the varying heat contents and the varying air currents around the two surfaces.

Because of varying heat contents, varying rates of heating and cooling, and varying masses, rates of expansion and contraction would be different of the two surfaces. Coatings on these surfaces would experience different stresses under the various environmental actions.

Summary

Small test panels can at best be compared to each other and more exactly to each other if they are the same size. Such panel tests are good for screening purposes. The performances of massive girders and small panels normally would not be compared directly.

1. Question

What effect would result from increasing the zinc content to 85%.

Answer

The specification, for the Fremont Bridge, covering the properties of the mixed inorganic zinc silicate primer "already" requires a minimum zinc pigment content of not less than eighty-five (85%) percent, by weight of the total non-volatile content.

(14)

Under Question A, previously answered, the question on insufficient pot agitation may be responsive to this question. The resulting applied inorganic zinc coating would be quite variable. The zinc content, because of poor agitation and settling of the zinc pigment, would vary. The first sprayed material would be "richer" - more than 85% - in zinc and the subsequent applied coating would contain less zinc. The properties would vary accordingly. The coating with excessive zinc would be dry, porous and irregular - the low zinc would show up as a glossy, flooded, poorly adhering or even layering type of deficiency.

The zinc ions (ZN^{++}) then form the various zinc salts and products: sulfates, phosphates, carbonates, etc. With rain and other condensations, the salts can dissolve (if soluble in water) and wash away or be washed by mechanical wearing action of the rain. In this way, new zinc is exposed for a repeat of the above sacrificial reactions. The free iron formed from the net reaction of (B) can rust by the atmosphere and start anew the whole deterioration process of zinc (and the lithium silicate end products). (15)

1. Question

The longitudinal girders on unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Answer

According to available information during the application of Rust-ban 193 and 195 cure solution, the temperature in the Canron plant was stated as being held between 70-80°F with a relative humidity of 30-50%. The film thicknesses were checked by wet film measurements, (I assume dry film measurements at those measured areas was also checked) and were determined to be at least 3 mils. This then appears to eliminate a point of consideration which is contained in Attachment #14.

On page 2, 3rd paragraph, the following is stated: (Following this from above paragraph: "it (#193) can easily be applied by spray at temperatures ranging from 40°F to 140°F.)

"At the upper temperature levels, Rust-ban 193 can be applied to a dry film thickness of 3-5 mils in one coat. At lower temperature levels, it may become necessary to apply two coats of Rust-ban 193 in order to obtain 4 dry mils..."

Apparently, from time above, at low temperatures only a maximum of 2 dry mils of 193 can be obtained per coat. This was not the situation at the Canron plant where it has been stated the temperature was held at 70-80°F.

The coating thicknesses taken 90 days after the application of Rust-ban 193 (+195 cure solution) showed 1 mil average on the interior surfaces of the box beams and 2 mils for exterior surfaces. This cannot be explained on the basis of deficiency in the application process since all factors were controlled, inspected and certified. There remains only the uncontrolable environmental factors at the Fremont Bridge site.

The 4' diameter areas of pinhole rusting would be the normal rusting pattern. Penetration and deterioration would follow a droplet distribution coinciding with moisture droplet distribution on a surface (horizontal). Vertical surfaces would display flow pattern with gravity plus droplet corrosion pattern. All rusting that appears would coincide with water droplet distribution and porosity in the Rust-ban inorganic zinc coating.

The girders were shipped Jan-Feb. 1971 and film thicknesses taken in March 1971. A review of the environmental factors during this period show the following:

Period	Sulfur Dioxide µg/m³	Water Equivalent
Jan 1971	78.6	7.09
Feb 1971	60.0	3.36
Mar 1971	48.6	4.87

The girders were subjected immediately to high SO_2 and water impact. With no time to build-up some of the normal protective salts, such as normal carbonates, to seal some of the pores, accelerated atmospheric SO_2 and water attack too place. Such attack could greatly dimish film thickness, as observed. (19)

N. Question

According to surveys by the resident engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted in San Francisco with Mobil Zinc 1, self-cured, and has been stored in Portland since the fall of 1970 with a loss of approximately 1/2 mil. The resident engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

Answer

In the application of any protective coating, there is always the possibility of improper coating. However, I cannot accept, without some facts to back it up, that the rusty areas of the Mobil Zinc #1 were due merely to improper application. As we have discussed, there are aggressive environmental factors at work at the Portland Fremont Bridge area. I place more importance on the sequence of environmental events that the superstructure steel was subjected to (I have to assume this steel was checked for conformance - proper application and proper film thickness - why shouldn't it have been checked?)

The San Francisco area probably had less aggressive atmospheric factors than the Portland area. Again, because of the success of the self-cure action of Mobil Zinc #1, the environment was conducive to the self-cure and was so accepted. Had this not been the case, some means of inducing cure may have been provided.

It may be repetitious to say, once the inorganic zinc coating has cured and has demonstrated ability to self-cure under those conditions, it probably has more resistance to aggressive environmental action. It must also be considered that aggressive attack is not uniform over this girder surface.

Q. Question

Your opinion of the cause of the loss of the inorganic zinc primer.

Answer

All of the items discussed in Question A through P certainly have bearing on the problem of the loss of inorganic zinc film thickness (and corrosion appearing) at the Fremont Bridge site. Obviously if the coating materials are not properly mixed, properly applied, properly cured, its performance will diminish. Because of guidance and inspection points set up in coating these steel parts, I don't think the major factor of the failure lies in the above type of deficiency or error. I believe there is a fundamental cause for the failure and that is the aggressive atmosphere at the bridge site. These aggressive factors were listed as moisture - rain and other condensations - and SO_2. Nothing in Questions B through P has been pointed to the cement plants which put out very alkaline dust particles. These too can be aggressive to the inorganic zinc coating. (21)

Summary

The entire problem of the failure would have definitely been eliminated if the Rust-ban inorganic zinc had some sort of organic barrier or topcoat, (sealer, tie or whatever) applied over it prior to being subjected to the Fremont Bridge site.. (22)

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FILES
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NOTED
A.E. JOHNSON

Box 300
Salem OR 97308

December 11, 1972

10-35.6

Original Signed by
H. A. Schell
Division Bridge Engr.

H. A. Schell, Division Bridge Engineer
Salem, Oregon

RECEIVED
DEC 14 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Oregon Projects I-405-8(20)301
I-405-8(22)304
East and West Fremont Interchanges
Painting Claims

On December 11, 1972, a meeting was held in A. E. Johnson's office to discuss the impending claim for zinc painting on the interchange structures. Those attending the meeting were: A. E. Johnson, Ed Hardt, L. I. Lindas, Chuck Lobaugh, Bob Shotwell, John Howard, and the writer. The meeting was basically to indicate the position of the State and if they should go to court in a claim between Canron (fabricators) and the contractors (Anderson-Hannen & Drake-Willamette).

The State's Legal Counsel, Mr. Lindas, said that the case is not very clear and that there are gray areas implicating the State in part of this claim. Basically these areas have to do with the inspection of the painting process in Vancouver, B. C. by Pittsburgh Testing Laboratories (much controversial steel was accepted for shipment before State inspectors in Portland objected to obvious deficiencies).

Mr. Lindas asked if we would approve a settlement with the contractor for payment to Canron. The two contractors are holding approximately $2 million in payment to the fabricator and it appears Canron must go to court in order to get this money. The supportable maximum basis for settlement according to State figures is as follows:

Project	State	Contractor
West Fremont	$90,000	$130,000
East Fremont	167,000	230,000

It appears that the settlement would be considerably below the quoted figures. I indicated that our file documentation does not adequately support such a settlement unless new information is presented. I was given a copy titled "The Analysis of Primer Rust Problem, Canron Ltd." which was prepared by the fabricator Canron to support their claim. I indicated to the State that I will review this report and discuss the problem with my superiors and advise the State as to our position.

cst cc: OSHD (A E Johnson)

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

7310

TO ~~G. L. Green, Division Engineer~~
~~R. E. Simpson, Division Engineer~~
Federal Highway Administration

DATE December 6, 1972

Federal-aid Project
No. I-405-8(22)304

FROM

L. H. Young
Programing Engineer

NOTED
A. E. JOHNSON

cy Comptr
Bridge
12-13-72

SUBJECT Request Contract Acceptance

Contract 7310 Work Completed November 28, 1972

Project East Fremont Interchange, Unit "A"

Highway Stadium Freeway

County Multnomah

We request that your office return a signed copy of this letter indicating acceptance or list conditions which would prevent your final acceptance of the contract work.

Acceptance Date ~~November 29, 1972~~

Conditions not acceptable: A final inspection was made on 11/29/72 and the project was considered acceptable upon completion of the few minor details discussed at that time. FHWA final acceptance will be withheld pending revision of signing as discussed with Mr. B. Gillespie of your office.

L. H. Young

G. L. Green
Division Engineer

RECEIVED
STATE HWY ENGR
DEC 13 '72
REFER TO

12-13-72
REFERRED TO

BY DEPUTY STATE HIGHWAY ENGINEER

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FOR FILING
7310

STATE COPY

cc: OSHD (A E Johnson)
Region
Wash DC

11-29-72

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
cat

CONSTRUCTION INSPECTION REPORT
(PPM 20-6.1)

(Check appropriate box) ☐ CONTACT ☐ PROJECT STAGE INSPECTION ☒ FINAL INSPECTION

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	31	Multnomah	Oregon
DATE OF INSPECTION	INSPECTION MADE BY		PROJECT NO.
11/29/72	C. T. Christianson, Area Engineer		I-405-8(22-24)304
IN COMPANY WITH			
*See below			
QUALITY OF WORK*	PROGRESS OF WORK	TIME ELAPSED	WORK COMPLETED
Satisfactory	Satisfactory	100 %	100 %

REPORT TO INCLUDE: (1) SCOPE OF INSPECTION (2) SUMMARY OF FINDINGS, RECOMMENDATIONS, AND ACTION TAKEN
(* Not applicable for all contacts.)

COPY SENT
JAN 16 1973
REGIONAL OFFICE

*In company with: Bob Shotwell, Resident Engineer, OSHD
Al Rear, Bridge Construction Engineer, OSHD
Ed Hardt, Asst Regional Engineer, OSHD
Don Adams, Maintenance Engineer, OSHD

cy- Const. Engr
Bridge
Young
1-18-73

EAST FREMONT INTERCHANGE SECTION
STADIUM FREEWAY
Grading, Paving, Structures, and Traffic Control Devices

Quality control of materials and workmanship have been periodically inspected throughout the life of this project and are considered satisfactory. While several problems have occurred during the progress of work, resolution has been found to the extent that work was completed in an acceptable manner.

Minor details requiring additional attention prior to final acceptance were discussed in the field and corrective action is underway. The State was advised that it would be acceptable to modify the directional signing on the project with State forces, and as previously discussed with the State, these modifications will be necessary prior to final acceptance of the project.

The problems previously encountered with the paint system, while seemingly solved as far as the physical paint application is concerned, have not been resolved regarding responsibility and payment of corrective work. It is expected that considerably more study and negotiation will be necessary to bring the final negotiations to completion. Upon resolution of these items the project is considered acceptable and the State has assumed maintenance.

NOTED
A. E. JOHNSON

RECEIVED
STATE HWY ENGR
JAN 17 '73
REFER TO
FOR
Info | Invest | R/D | DIR | Sign | Act | File

FORM PR-33B
(REV. 5-70)

PREVIOUS EDITIONS WILL BE USED

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OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO G. L. Green, Division Engineer
~~R. F. Simpson, Division Engineer~~
Federal Highway Administration

DATE November 22, 1972

Federal-aid Project No. I-405-8(22)304

FROM ORIGINAL SIGNED BY
R. D. ASBURRY

L. N. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7310 Extra Work Order No. 20

Project East Fremont Interchange Unit A

Highway Stadium Freeway

County Multnomah

The contract specifications call for a calcium chloride solution to be installed in the Hi-Dro Cell Impact Attenuators on this project.

This solution has proven to be detrimental to the structure decks, expansion devices, and vehicles when impact causes it to spill. To eliminate this problem ethyline glycol base antifreeze will be substituted for the calcium chloride solution. A price agreement will be prepared deleting the calcium chloride solution from the contract work.

Copies of the engineer's letter of explanation are attached.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer November 2, 1972.

Your approval as of November 2, 1972 is requested.

Attach.

DMW:dgk

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NOV 21 1972
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Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: November 17, 1972

In reply refer to: 10-35-FA

7310

FROM : G. L. Green, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange
Excess Cost of Power Service to UPRR
(Mr. Litchfield's November 1 letter)

After carefully reviewing this matter we fail to establish our projects responsibility for this additional cost. It appears that the railroad chose to abandon their special electrical service rate when they made the decision to use a temporary connection to a separate meter rather than proceed with the permanent relocation described in the original agreement. Although the railroad claimed at the time they did not have forces available to make the adjustments the work could have been accomplished by a private contractor without much delay.

Before we can consider authorizing Federal participation in this additional cost it will be necessary to establish that this is a proper billing and that the State has a legal responsibility for this cost.

RECEIVED
STATE HWY ENGR
NOV 20 '72
REFER TO
FOR

11-20-72
Mochring

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 917-344

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NOV 17 1972
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7310

November 15, 1972

Davies, Biggs, Strayer, Stoel and Boley
Law Offices
900 S. W. Fifth Avenue
Portland, Oregon 97204

Attention: Richard A. Fransko

Gentlemen:

As requested in your letter of November 3, we are attaching xerox copies giving the current status of funds on the East Fremont Bridge, Contracts 7310, 7311 and 7312.

Our Bridge Section informs us that these contracts will be completed within the next several weeks.

Very truly yours,

C. W. Head, Secretary
OREGON STATE HIGHWAY COMMISSION

CWH:fkm
Att.

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERE
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
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WILLIAM M. McALLISTER
BARNES H. ELLIS
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JOHN E. HUISMAN
BERTRAND J. CLOSE
VELMA JEREMIAH

KENNETH D. STEPHENS
DAVID P. MILLER
TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
WALTER C. MINNICK
JERE H. WEBB
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RICHARD E. ROY
JEFFREY MICHAEL ALDEN
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K. PATRICK NEILL
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JOY D. ABELE
DONALD J. BOYD
WILLIAM G. MIGELY
GREGORY J. HOWE
JOHN M. SCHWEITZER
WILLIAM F. MARTSON, JR.
MICHAEL M. MORGAN
RICHARD M. BOTTERI

November 3, 1972

Mr. C. W. Head, Secretary
Oregon State Highway Commission
Highway Building
Salem, Oregon 97310

Dear Mr. Head:

Re: Contracts Nos. 7310, 7311, and 7312

East Fremont Bridge Interchange

Would you please furnish us with a current statement of the status of funds on each of the above-referenced projects. Also, please indicate with respect to each contract the date on which the Highway Department reduced the retained percentage from 10% to 5%, and indicate the dates of any further reductions in retained percentages. Also, please advise whether any of the projects have been formally accepted, and if not, when such acceptance is anticipated.

Very truly yours,

Richard A. Franzke

RAF:pm

copy to Vince for info 11/6

11/13 = Est. Compl. Date 12/1/72 according to Bob Wright

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OREGON
STATE HIGHWAY COMMISSION

NOTED
C. W. HEAD

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7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 13, 1972

SUBJECT: East and West Fremont
Approaches
Canron's

To: Mr. A. E. Johnson
Asst. Highway Engineer
Highway Office Building

NOTED
A. E. JOHNSON

Attached are my comments of Canron's "Book" of January 1972 which presents their views on the poor inorganic zinc primer job we received on the East and West Fremont approaches. I believe my comments are self-explanatory but if you should need any clarification or further information, please call me.

JOHN C. JENKINS
Engineer of Materials & Research

By
J. E. CHIDSEY
Structural Quality Control Engineer

Attachment

JEC:eb

cc: Walt Hart

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OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

P. 12 - Last Paragraph

There were 11 different primers which met the requirements of (1), (2), (3), (4), (5), (6), (7) by virtue of the fact they were listed on the Q PC 23236 List. Since all of these products had undergone extensive testing including some 18+ months exposure tests, I feel that they could all qualify under (8).

(9) I know of six of the 11 which make the vinyl finish. The other five I'm not certain, but feel that they could <u>furnish</u> a high build vinyl compatable to their I.O. Zn.

(10) All manufacturers can furnish a technical rep. of the quality that we saw from ENJAY.

(11) The materials tests were not difficult to pass.

Mobil Zinc 1 is used on Fremont which has the same specs. Amercote products were qualified. Amercotes representative went over the Specs before the contract was let - If there had been an area they could not meet, he would have screamed loud and long. I had conversation with Lewis Hayes of Prufcoat, Grow Chemical, who said that he submitted a bid for the material.

P. 16 - (h)

The modification of the profile was done to accommodate Canron's blasting procedures. They were having difficulty getting both profile and cleanliness. Fought in Tigard met the spec w/o problem. Murphy-Pacific meet the same spec w/o problem.

P. 18 - Top Paragraph

The change to R8193 was due primarily to the fact that Canron was having difficulty obtaining both ancho-profile and cleanliness required. To get the cleanliness the profile was too low. Because of this, ENJAY suggested the use of R8193 which required a lesser profile.

P. 25 - 3.4.14

The primer can be thinned, using the vehicle supplied as the liquid component.

P. 26-27 - 3.5.1.2

While I was never in the paint shop in Vancouver it is my understanding that this bay was not heated and the environment controlled as stated.

P. 42 - Top of Page

Emphasis added is w/o merit.
We realize that zinc is a sacraficial coating. It is in fact a cathodic coating, but as long as the film is unbroken, the amount of sacraficial action is minimal.

P. 44

Canron makes no claims as to having experience in the application of Inorganic Zinc Primers. If this is the case, which I understand is true, they would have to be given quite detailed reccomendations and procedures. In all of the correspondence and discussion I saw and heard from Canron, I never did hear any rererence made to their past experience with this type of product. Detailed instructions and procedures were given as much for the benefit of the fabricator as for the State. If these instructions and procedures were unreasonable, why was no objection made to them before the contract was let? Prior to the contract award, everyone seemed to feel they were a good set of specs.

P. 54 - Last Sentence

They state an emphasis on continuing sacrificial action of zinc-rich primers, but offer no figures as to what this rate is. Harlan feels that the 1/2 mil loss in the lst six months is due to curing action and not sacraficial action. Using their reasoning, even galvanized surfaces of 203/ft.^{2} would be gone in less then 7 1/2 years. Total.

P. 56

Comment that the members were stored next to a cement plant. The only cement plant is in Lake Oswego. There is a Permanente Storage area on the East side of the river, but the members were not stored near it.

Comment is made that "the State did not obtain from the manufacturer any document instances of use of its products under conditions comparable to those existing on this project." Portland's weather and atmospheric conditions are quite unique, so comparable conditions would be difficult to find. The San Francisco Bay Area is somewhat similar and RB191 was used on the San Mateo-Howard Bridge across the South end of the bay. The Bay Area has a higher air polution problem than does the Portland area.

P. 57

CAN TEST is doing some unwarranted extrapolation of data. They are taking a 1/2 mil loss in the first four months and extrapolating it to read 1.2 units loss in one year. This is not feasible.

P. 64 Wet gages are not reliable in that they measure the thickness of the liquid applied. If the Zinc settled out, there would be insufficient dry film.

P. 67 - Middle Paragraph

No documentation of this fact was made until after the paint problem was brought out into the open.

From comments made, CANRON does much to attempt to relieve PTL from any charge that the inspection was poor. After the problem was discovered, the remaining steel was shipped to the jobsite and to the best of my knowledge, there were no problems with rusty, primed steel.

Not having at this time, a copy of the Navy report cited, I can make no comment on this phase of the report.

I still ask the same question: If the insides of the girders had 3+ mils of IO Zinc applied and this material was eroded or sacraficed as CANRON claims, what became of the products of this erosion and sacraficial action? With the toss of from 1 1/2 to 3 mils of primer over the large surface involved, there would be a large amount of residue in the bottoms of the girders. None of this residue has ever been apparent to me or anyone else who has examined these girders.

Also, the rusting problem was by far more prevalent on the inside than the outside of the girders. I would like an explanation of this phenomenon.

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OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

7.310

DATE November 10, 1972

TO Mr. Edward L. Hardt
I-505 Project Engineer

FROM Walter J. Hart
Bridge Engineer

ORIGINAL SIGNED
WALTER J. HART

NOTED
A. E. JOHNSON

SUBJECT Paint Primer Problem
East and West Fremont Interchanges

Attached are copies of various correspondence relating to the problem of the primer on the East and West Fremont Interchanges. This material is being sent to you for your review prior to our meeting with Mr. Lindas.

The meeting will be held on Tuesday, November 14, at 9 a.m. in the small conference room.

Please note that the time of the meeting has been changed from that previously set.

WJH:dh
Attachment

cc A. E. Johnson /w/ attach.
L. I. Lindas /w/ attach.
H. A. Schell /w/ attach.
H. D. Mandrell /w/ attach.
J. D. Howard /w/ attach.
Robert Shotwell /w/ attach.

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NOV 13 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 31, 1972

To: Walter Hart
Bridge Engineer
Salem

SUBJECT: Saroyan's Paint Reports
West Fremont Interchange
Contract No. 7214

Attached you will find a three page report dated October 27, from John Howard which is his analysis of Mr. Saroyan's answers to painting questions. This completes the Metro Section's review of the data submitted by Mr. Saroyan.

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

Encs

cc: John Howard

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FORM S-58 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

METROPOLITAN ENGINEER

RECEIVED
OCT 30 1972
MS AJE AME PE MDE MTE

Portland, Oregon
October 27, 1972

SUBJECT: Zinc Primer Loss
West Fremont Interchange
Contract No. 7214

To: Mr. E. L. Hardt
Asst. Metro. Engineer
O P F I C E

We have read both of Mr. Saroyan's reports concerning loss of zinc primer and have the following comments based on our field observation.

Question:

A-1 Excessive Blast Profile- We do not consider this a significant factor. From PTL's reports Canron had difficulty getting a white blast and a 1½ mil profile. They requested and were permitted a ½ mil profile plus RB 193. On SE Unit 1 the web on one girder section was rusted from what appeared to be an excessive profile. This unit was primed before the change to RB 193 with RB 191. We do not have any other specific examples.

A2, 8, and 10 Insufficient atomization pressure, excessive pot pressure, spray gun too close. The orange or rippled surface typlified by these application problems was not noted on the girders.

A3, 7 and 11 Insufficient pot pressure, excessive atomization pressure, spray gun too far from surface. The soft porous dusty surface wasn't apparent by the time the girdersreached the job site. We believe there is an application problem in the stiffener areas. It was very common to find rust on the horizontal stiffener and the web immediately adjacent on the girder interiors. A soft surface that could be washed away by the rain would explain this problem.

A4 Inadequate Pot Agitation- The zimc primer throughout the project was found to have considerable variation in thickness with in a given area. We have made surveys using a 6 inch grid on a 5 ft. by 6ft. girder web section and found thicknesses varying from 3.0 mil to 1.0 mil. A variation 1.0 mil is more common and we believe is typical for the RB 193 areas. RB 191 would be less. We can remember surface texture differences described for inadequate agitation but do not have supporting records. The difference in the rate of sloughing off of the hi-zinc areas compared to the vehicle areas could explain some of the thickness difference.

A5 Excessive Pot Agitation- Mr. Saroyan describes a spotty surface resulting from this condition. He does not indicate the appearance after the curing solution is applied. We have several photographs showing the spotty surface; however, this may be due to the acid cure.

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A6 Premature exposure to rain. This could be a factor but we do not have any information to support it.

A9 The evidence and effect of phosphoric acid cure spread at different rates. We are of the opinion that excessive acid cure is a factor in the zinc loss. The excessive white salts were very much in evidence on the interior surfaces of the ring girder sections. The acid cure is of special interest when considered with the possibility of inadequate pot agitation. The report points out the acid reacts with the lithium silicate vehicle; when this is neutralized it reacts with the zinc. Assuming the recommended spreading rate is used in the areas lacking in vehicle there would be excess acid to react with the zinc. With the already soft porous surface we would imagine there would be a significant film loss. This would further explain the difference in film thickness.

In the second report questions B, D, V, N and P do not pretain to the loss of zinc or this job so no comment has been made.

Question:

C and E The solubility of zinc when exposed to the SO_2 in the Portland atmosphere. The trapezoidal shape of the longitudinal girders exposes the interior surfaces to rain and SO_2. The exterior is relatively sheltered. The interior surfaces on the ring beam sections are completely protected. Mr Saroyan says the zinc and SO_2 react and the zinc slowly"washes away" We do not understand how this is possible on areas protected from the rain.

F and G Evidence of residue in the girders from washing of soluble salts by the atmosphere. The explanation for areas exposed to the rain is adequate. It is difficult to understand why there would not be some residue on a protected area.

H Comparison of small test panels to large areas. Mr Saroyan makes some valid points on the difficulty of duplicating actual conditions with a test panel.

I Effect of increasing the zinc content to 85%. Not pertinent.

K The effect of rust stain deposited on the zinc primer surface. Our measurement of paint thickness on rust stained areas showed no significant difference from adjacent unstained areas.

L and M Explain loss of zinc on WS 1, East Fremont over a ninety day period. Explain good condition of zinc on WE Unit 1 after 17 month. In these discussions we do not believe adequate consideration was given to (1) RB 193 plus acid cure was used on first example and (2) RB 191 without acid cure was used in the second.

O Comment on distance between paint gun and steel. This was covered previously on question A10 and 11.

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Q. Mr. Saroyan's opinion of the cause of the zinc primer loss. We do not agree that the Portland weather was the major factor in the deterioration of the primer. In our opinion the zinc loss is explained by a combination of the following:

1. Application- Difficulty in properly applying zinc in corner areas and the possibility of improper pot agitation

2. Acid cure on the RB 193- This is the major factor if one can be singled out. None of the girders primed with RB 193 were in as good condition as those painted with RB 191.

3. The Portland weather- The surfaces exposed to the rain showed greater film loss than the less exposed areas.

J. D. Howard

John D. Howard
Res. Br. Engr.

JDH:ads

cc: Mr. R. Shotwell
file

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BRIDGE DIVISION

REV. 10-68

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 26, 1972

SUBJECT: John Saroyan's Report II
East & West Fremont Approaches

To: Walter Hart
Bridge Engineer
Salem

Your letter of October 5, transmitted the second installment of Mr. Saroyan's answers to questions posed relative to Fremont Interchange painting and requested our comments which follow.

Question B-1 and B-2 deal with (1) putting vinyl directly over zinc and (2) applying five mils of vinyl in one coat. This is an after-the-fact examination of the method of applying vinyl on the East and West Interchange projects. Other than hope that this vinyl does not fall off the steel, I find little to comment on these two answers except that since Saroyan recommends applying vinyl in multiple thin coats to allow the maximum solvent release, this would explain our problem of bubbling and pinholing with one coat of vinyl. Since much of the vinyl has not as yet been put on the Fremont Superstructure, perhaps we should investigate the adhesion of the Mobil vinyl to the zinc on the structure to determine if adhesion could be a problem.

Question B-3: no comment.

Question C. Saroyan goes through a chemical analysis to show what happens when the inorganic zinc is exposed to an atmosphere containing sulpher dioxide. The important point in respect to Portland's "corrosive atmosphere eating away the inorganic zinc" is the time involved. I am confused by Saroyan's answer to Question C with respect to the time for the chemical reaction because in the third from the last paragraph on page 2 he mentions the word slowly in connection with the washing action. Yet in his summary of this question, he uses the word quickly with respect to this process. I believe the time for the zinc to be eroded to the point of rusting is most critical. Enjay's recommendation for hydrogen sulphide content for Rust Ban 191 use is 300 parts per million. The sulpher dioxide concentration in the Portland atmosphere during the most critical period was 0.03 parts per million. Assuming the chemical reaction to the inorganic zinc of these two pollutents is on the same order and I would have to defer to a chemist for confirmation of this, it is hard to imagine how the low concentration of sulpher dioxide compared to that recommended for hydrogen sulphide by Enjay could completely break down the paint system in a matter of two or three months. I can only think that the answer lies in the fact that the inorganic zinc in Portland was not properly cured so that it could not withstand the attack of the sulpher dioxide.

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OCT 30 1972
BRIDGE DIVISION

Xerox Copy to
L. Linda S
10-31-72 dh

Question D refers to an acceptable paint system and since it is not particularly germane to the inorganic zinc problem in Portland, I have no comment.

Question E: Since I don't understand the chemistry involved in Saroyan's answer to this question, I cannot completely comment on it. However, it appears as though he is talking about what might happen to the inorganic zinc if curing hasn't taken place. If this is the case, then the question of whether or not the inorganic zinc applied in Vancouver, B.C. was properly cured would have to be taken into account when analyzing this answer.

Question F and G: No comment.

Question H: I have no comment on Saroyan's remarks with respect to small test panels. I have observed many test panels at the Bonneville Power Administration's laboratory in Vancouver, Washington. They would be a good source of information if some was desired on this question.

Question I and J: No comment.

Question K deals with the rust "stain" which has been noticed on parts of the Fremont girders. I don't believe that this stain played a significant part in the breakdown of the inorganic zinc because I was never able to correlate the presence of the stain with the rust breakout on the girders. Perhaps Resident Engineers' Shotwell and Howard can comment more thoroughly on the correlation between stain and rust breakthrough.

Question L: Saroyan is assuming that the paint application process in Vancouver, B.C. was not deficient since "all factors were controlled, inspected and certified". The only uncontrolled variable in the whole sequence then could only be the environment in Portland and, therefore, he concludes that this must be the cause of the problem. I cannot necessarily accept this assumption as I have mentioned in my analysis of Saroyan's first set of answers since there is a strong question in my mind with respect to the proper curing of the inorganic zinc in Vancouver.

Question M: The answer to this question is the key to my thinking that the degree of cure of the inorganic zinc is more crucial than the environment in Portland. Saroyan is saying here that once the zinc is properly cured that the Portland environment has no effect on it. Therefore, when the girders are affected by the environment, it follows that they were not properly cured. This goes back to the application of the curing acid in the plant in Vancouver and my comments contained in my answer to Saroyan's first set of questions with respect to acid cure.

Question N: The answer to this question confirms my thoughts as expressed under Question M--namely, that the cure is more important than the environment. Saroyan states "once the inorganic zinc coating has cured and has demonstrated ability to self cure under those conditions, it probably has more resistence to agressive environmental action". I believe he is saying in this answer that the Mobil zinc applied in San Francisco was properly cured so that the Portland environment has little or no effect on it.

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Question O: No comment.

Question P: We came to the same conclusion as Saroyan and we have equipped the field offices with the Elcometer gage. Incidentally, we had a session with Canron's paint consultant, CanTest, and calibrated our gages with theirs so that there would be no argument about paint thickness readings on the project.

Question Q: Saroyan says he believes the fundamental cause for the inorganic zinc paint failure is the aggressive atmosphere at the site. In previous answers he has shown how sulpher dioxide will react with the inorganic zinc and cause chemical breakdown. Chemically I am sure this is true. However, he has made no showing as to the time involved for the sulpher dioxide to breakdown three mils of properly cured inorganic zinc paint. He has shown in Question M that this aggressive atmosphere has no effect on properly cure zinc. Therefore, the key to the problem would seem to lie in whether or not the paint was properly cured rather than the environment in Portland.

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
R. E. Shotwell
R. O. Cunningham
John Howard
John Jenkins

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A - What would be the evidence & affect of:

1. Excessive blast profile?
2. Insufficient atomization pressure?
3. Insufficient pot pressure?
4. Inadequate agitation?
5. Excessive agitation?
6. Premature exposure to rain? (before 24 hours elapsed)
7. Excessive atomization pressure?
8. Excessive pot pressure?
9. A phosphoric Acid curing solution pH below 1.0 applied at 400 sq. ft. per gallon. 250 sq. ft. per gallon. 800 sq. ft. per gallon (See Transparencies)
10. The gun being held too close to steel?
11. The gun being held too far from steel?

B - Generally, comment on the advisability of:

1. Putting vinyl directly over zinc.
2. Using 5 mils of hi-build vinyl in one coat (viscosity over 125 KU)
3. Using a vinyl wash primer or some other seal coat.

C - Realizing that a phosphoric acid curing agent was used, and that the members were barged from Vancouver to Portland, how soluble would the zinc be when exposed to atmosphere containing 30-50 parts per billion SO_2?

D - Your comments on an acceptable system.
Is the following system sufficient?

Primer	- In organic Zinc - Ethyl Silicate	(3 mils)	
Stripe Coat	- Organic Zinc (Epoxy)		
	Vinyl Wash Primer (117)		
	Vinyl Hi-Build 80 KU	(3 mils)	(first coat)
	Vinyl Hi-Build 80 KU	(3 mils)	(second coat)

E - Is Portland, Oregon's, winter atmosphere deleterious to a water based inorganic zinc primer without a seal coat?

F - Should there have been a residue on the ~~members~~ steel girders painted from a washing of the soluable salts caused by the Portland winter atmosphere?

G - If your answer is yes, what evidence should there have been on the ~~members~~ girders to indicate a residue?

H - Would use of small test panels be indicative of reaction of paint on large steel panels?

I - What effect would result from increasing the zinc content to 85%?

J - Was a tie coat necessary after the application of the zinc primer?
Was a Seal Coat necessary after the application of the zinc primer?
Was a Wash Coat necessary after the application of the zinc primer?
Are the foregoing terms, or any two, synonymous in the trade?

K - Does rust "stain" which has been deposited from an unpainted area such as the top flange have a detrimental effect on the zinc primer and/or the finish coat?

L - The longitudinal girders on Unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Paint Used	- Enjay Rust-Ban 193 with Post Cure
Type Const.	- Longitudinal Trapezoidal Girders
Quantity	- 500 Tons with 60,000 sq. ft. of surface area
Painted	- January 1971
Shipped	- January and February 1971
Checked	- Paint thickness checks made in late March 1971
Gage	- Used Micro-Metrics Tooke gage
No. Readings	- Approximately 500 readings spaced throughout unit
Paint Thickness	- The interior of the box averaged out about 1 mil. The exterior about 2 mils.
Rust	- Numerous areas up to 4' in diameter showed discoloration from "pinhole" rusting in addition to the stain from the top flange.

(We used this Unit as an example not because it was the worst, but because we had many readings, taken a relatively short time after painting.)

M - The structural steel in Unit WE-1 of the West Fremont, which was primed with rust-ban 191 and "self cured" was still in good condition after 17 months of exposure. Please explain, after considering the following factors:

Paint Used	- Enjay Rust-Ban 191, self cured.
Type Const.	- Trapezoidal Girders & Box Beams
Quantity	- 600 tons with 70,000 sq. ft. of surface area
Painted	- July 1970
Checked	- November - December 1971
Paint Thickness	- Apparent loss during the above period of 0.8 mils.
Rust	- A few isolated spots of pinhole rusting

N - According to surveys by the Resident Engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted in San Francisco with Mobil Zinc 1, self cured and has been stored in Portland since the fall of 1970 with a loss of approximately 1/2 mil. The Resident Engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

O - We have been told that the distance between the paint gun and the steel surface is very critical with inorganic zinc primers. Would you comment on this.

P - We would appreciate any comments you might have in regard to selection of a thickness gage for this type of work.

Q - Your opinion of the cause of the loss of the inorganic zinc primer.

NOTE: Please define "tie coat," "Seal Coat," "Wash Coat," referred to in question "J" above.

FORM S-50 (REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 24, 1972

SUBJECT: John Saroyan's Paint
Report No. 1

To: Walter Hart
Bridge Engineer
Salem

Attached you will find a copy of a letter dated October 19, from Bob Shotwell which is his review of John Saroyan's paint reports and of my comments on the first report. My thoughts as expressed in my September 26, letter to you that the cause of the zinc paint breakdown could very well be the application of too much acid cure at the Vancouver paint plant would seem to be confirmed by the comment in Mr. Shotwell's letter that the "rust patterns followed chalk white stains on the zinc where the post cure acid actually ran down the sides of beams".

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

Encs

cc: Robert Shotwell
John Howard w/attach.
R. O. Cunningham "
John Jenkins "

RECEIVED
OCT 26 1972
BRIDGE DIVISION

Copy To Lindas 10-27-72 STND

FORM E-50 (REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97227
October 19, 1972

SUBJECT: John Saroyan Paint Report
East Fremont Interchange

To:

Mr. H.S. Coulter
Metropolitan Engineer
5821 N.E. Glisan Street
Portland, Oregon 97213

Upon review of Mr. Saroyans report and Mr. Hardt's letter of September 26, 1972, I have the following comments.

Mr. Saroyans answers to Question A (parts 1-11) deals primarily with different aspects of the preparation of the steel & application details of zinc rich paint. As you know this work was not performed at the site. It is worth noting however that in Mr. Saroyans recap item b he states that a slight amount of white salt must be removed before top coating (when post cured). He goes on to say this can be accomplished by a minimal amount of washing. In his second report under question "B" he states the white deposits should be removed by high pressure wash. Mechanical scrubbing should also be used if necessary. This apparent inconsistency on a seemingly important point is confusing.

It should also be stressed that in many instances rust patterns followed chalk white stains on the zinc where the post cure acid actually ran down the sides of beams. Some beam sections were so overloaded with post cure acid as to be completely white and evident from 400' - 500'.

There is no doubt in my mind that these white beams which showed rust bloom were damaged by to much acid as indicated in Mr. Saroyan's Effect (1) 250 Sq.Ft.

Mr. Hardts letter of September 26, 1972, mentions beams on the East Fremont that had 2 coats of zinc primer & according to Canron Limited still were rusting.

The beams in question were the larger beams in Unit A. A special effort apparently was made by Canron to apply the proper paint thickness on these beams. The results were evident. Very little rusting was evident on these sections compared to the remainder of the job. These beams represent, in my opinion, the result of a tighting up of Quality Control by Canron in their Vancouver plant and indicate what the rest of the job could have looked like. The rusting that did occur can be attributed to the normal holidays and other problems on any paint job. Incidentally these beams sat through all the winter weather and were top coated late this summer (why didn't SO_2 bother them?).

METROPOLITAN ENGINEER
RECEIVED
OCT 20 1972
MB AME AME MDE MTE

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

RES:rsr

CC: Files.

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OCT 26 1972
BRIDGE DIVISION

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
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WALTER C. WINNICK
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LUCIAN J. CARSON
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
E. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

October 16, 1972

Mr. Leonard I. Lindas
408 Highway Building
Salem, Oregon 97310

Dear Leonard:

Delivered herewith are the following:

1. Two transparent slides OSHD furnished Mr. Saroyan;

2. Enlarged photographic prints of each of the slides;

3. My letter to Mr. Gordon Smith of Can Test, Ltd. requesting his comments on the pictures, and his reply to me dated October 12, 1972;

4. A copy of my letter forwarding the photographic prints to Mr. Saroyan and requesting his comments.

I am seeking confirmation that the photos were received by Mr. Saroyan. By telegram I have asked him to expedite his response so that we, in turn, can sit down with you at the earliest possible date and resolve this whole problem.

Very truly yours,

Richard A. Franzke

Enclosures

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MILTON R. STEWART
CHARLES F. HINKLE
K. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

October 13, 1972

Mr. J. R. Saroyan
c/o Christopher Inn
300 E. Broad Street
Columbus, Ohio 43215

Dear Mr. Saroyan:

Upon receipt of the State's color slides from you, I sent them to Mr. Gordon Smith of Can Test, Ltd. for his comments. Subsequently, I obtained enlarged photographic prints of each slide and furnished these to him also. I was interested in Mr. Smith's opinion because, as you may know, he followed the painting operations at Canron's plant while the work was being performed and he has conducted various tests for us since the paint problem became known.

Mr. Smith's report is enclosed and as you can see, after examining the enlarged photos, he questions that the "salts" in the picture are from the curing accelerator.

Since the enlarged prints were not available when you examined the slides, I am enclosing one of each and I would appreciate any further comments you may care to make with respect to the pictures and also your comments on the various points raised by Mr. Smith.

This request is submitted to you on the same basis as previously.

Very truly yours,

Richard A. Franzke

Enclosures

cc: Mr. Leonard Lindas

Airmail, Special Delivery

COMMENTS ON FREMONT BRIDGE PRIMER PROBLEM

STUDY OF COLOR PHOTOGRAPHS IN REGARDS

TO PLATE SECTION WITH UNUSUAL EXCESS SALT DEPOSITS

by

JOHN R. SAROYAN

1. PREFACE

Study of the color photograph (Photo #1) shows unusual patterns and amounts of salt deposits. The patterns suggest fluid flow and a moving front of a fluid carrying soluble and/or particulate matter. Also it is important to note that the amounts of moving or flowing fluid had to be in excess, beyond normal—for example more than could result from just applying the normal curing agent on the applied Rust-Ban 191 or 193, at the spreading rate of 1 gallon of curing solution per 400 square feet of coating surface.

2. FLOW DIRECTION

To establish some timetable as to when the salt deposits appeared, it is necessary to determine the direction of the salt material flow. To review the color photographs, and refer to particular areas, Photo #1—so marked—has been marked in coordinates: "A, B, C---R" along one axis and "1, 2, 3---31" along the other axis.

3. SCANNING PHOTOGRAPH OF DEFICIENT BRIDGE SECTION, PHOTO #1

It appears that the general direction of salt material flow of fluid on the subject coated plate, is upside down to the erected-in place-member as shown by Photograph #1. In contrast, a smaller plate shown in Photo #1, coordinates "A-E" x "25-31" shows a normal flow downward in the direction of "E" to "A". Examining the flow, the salt deposits are downward and are identified as a border or flow front.

To examine the main subject plate, turn the photograph (#1) upside down. (The coordinates are duplicated for convenience). Let us look at certain areas to determine flow direction and hence establish when the deficiency developed.

(A) AREA "H-I" x "25-27"

Let us look at the area, letters "B i J", turn the photograph upside down such that the letters appear now as : "ſ ɪ ꟻ". Let us examine this further.

(1) (2) (3)

(1) The fluid flow clouded over the portion of the letter "J" as shown in the upside down position. The flow (with the photo upside down) is downward. This shows the salt deposits appeared before the plate was erected. The plate was stored in the upside down position.

(2) The "i" is also clouded over (photo upside down) with the flow again downward.

(3) With the photo upside down, the extended leg of the "B" which now is at the top of the B. The flow, downward, approached the leg of the "B" and was confined to the left, "a", of the leg of the "B". The right side of the leg of the "B" shows drainage, "b", (appears as darker area) of flow material. Again the flow is downward with the steel coated plate upside down.

(B) AREA "G" x "1-14"

With the photo (#1) upside down, this area to interpret flow, could represent a pass of the spray application of the curing solution or whatever fluid material produced the flow pattern. The flow is downward. The 3-lobed area at "H-K" x "10-13" shows downward flow. Again, the deficiency as indicated by salt deposits, occured prior to erection while the member was stored.

(C) AREA "G-K" x "1-10"

With Photo #1 upside down, again the flow was downward. There apparently is uneven absorption and surface wetting due to varying porosity and random surface texture, producing the "confusing" light and heavy areas of salt deposits. Again, the salt deposits are formed from a downward flow of material and are identified as a border or flow front. The borders of salt deposits are further supported with material by drainage from adjacent areas (dark areas).

(D) AREA "G-L" x "18-27"

Again with Photo #1 upside down, starting at level "G" and extending "18-27", the flow was downward. There is a fairly even flow downward, with a few

scattered areas of depleted salt deposits showing up as darker areas. As the flow front moved downward, there was a linear break in surface absorption, such that it appears that there was a separation or shrinking away in the flow of material. As the flow continues downward, another salt border or concentrated salt front appears ("K-L" x "20-26"). Again there is drainage from the adjacent areas to the salt front (dark areas) supplying more material.

4. POROSITY NATURE OF INORGANIC ZINC COATINGS

By nature, most applied inorganic zinc coatings are porous. The degree of porosity from area to area on the surface can vary considerably. For example, when the curing solution is sprayed on the surface, a variety of absorptions can be displayed. Some areas may appear flooded, more wetted, and some areas may appear dry, less wetted. The instructions are to thoroughly wet the surface with the sprayed curing solution. At the normal spray rate of about 400 square feet of surface per gallon of curing solution, a nominal degree of white salt deposits usually result. Surplus or excessive salt deposits as indicated by the present subject coated plate, would suggest an abnormal situation.

5. POSSIBLE CAUSES OF EXCESS SALT DEPOSIT - DEFICIENCY

The unusual pattern and amount of salt deposits on the section of the subject steel plate requires explanation. The following three possibilities are cited:

A. Touch-up painting was done, repairing the particular plate, using additional inorganic zinc primer and using excessive curing agent.

B. Environmental conditions were such that chemical reactions took place to produce excessive salt deposits.

C. A gross dislodging of the applied inorganic zinc primer film took place with chemical degradation resulting.

6. DISCUSSION OF A.

On my first visit to the Fremont Bridge site, I did witness various touch-up painting of steel members, where excessive inorganic zinc primer was applied. This appeared to be done on a random basis—I do not believe that at a future date anyone could describe what plates were touched up and to what extent. Only quality assurance records, if kept, could establish whether the subject plate was touched-up or not.

DISCUSSION OF B.

In previous discussions, it has been establisned that the Portland, Oregon atmospheric environment is very aggressive. The sulfur dioxide (SO_2) could be

responsible for coating deterioration. In review, the SO_2 with moisture formed sulfurous acid and then sulfuric acid. The sulfuric acid could then react with various materials. It could react with zinc metal to form zinc sulfate salt; it could react with unreacted or uncured lithium silicate to form lithium sulfate salt; and if it penetrated to the steel, iron sulfate salts could form. In all these cases, the sulfate salts are readily soluble in water and certainly would be washed away by the prolonged rains. The excessive amounts of salts formed then don't seem feasible on the above basis.

A possible explanation of the excessive salt deposit on the subject plate may be as follows: Another aggressive environmental factor at the Fremont Bridge site was probably due to the numerous cement manufacturing plants. It was described to me, at times dense clouds of cement dust are expelled into the air. These clouds could deposit on the ground and stored plates. The cement dust particles are calcium compounds which are quite alkaline. Such alkaline materials could react with the inorganic zinc primer film and possibly cause some reversal of the cured film—undo the silicate complex. The calcium alkali dust could react in several ways. The reversal of the silicate complex could produce the original lithium silicate and provide the potential for film dislodging or degradation. Then the acid phosphates could be nuetralized by the alkali forming alkali calcium phosphates. Also, the zinc metal could react to form alkali zinc compounds and carbonates (CO_2 from the air, plus alkali condition) with the addition of sufficient cement dust, the resulting excess amounts of salts could be provided for. This appears to be a feasible explanation of the derivation of the excessive salt deposits on the subject steel plate.

DISCUSSION OF C.

Another promising explanation for the excessive salt formation is a gross dislodgement of the applied inorganic zinc primer. The exact sequence may not be exactly as identified, but the important event is that the film is dislodged (or deteriorated). To speculate, the applied film must have been in a "weakened" state, perhaps not fully cured, before the dislodgement could take place. For example, the plate could have been in the open and subjected to rain before full cure had been obtained, dislodging the film. The rain would wash away the curing solution, and the uncured lithium silicate. The "fractured" coating materials would form in flow patterns in excessive amounts. These materials would include zinc reaction products, lithium compounds and phosphates.

7. REVIEW OF CLOSE-UP PHOTOGRAPH, MARKED #2

This photograph shows a typical draining of a water-thin material, such as the Rust-Ban 195 curing solution, (phosphoric acid solution). The flow downward and the subsequent streaking looks normal. The peninsular shaped streaks show, within the confines, areas of heavier salt deposits. The diagonal corrosion zone above the peninsular streaks appears to be drained first of some coating film material, providing a surplus of salt deposit materials and then permitting rusting to take place.

8. SUMMARY

A. The normal application of Rust-ban 195 curing solution would not produce the extensive and dense salt deposits that apparently withstood frequent rains. Such salts would not remain especially after frequent rains. It then must be concluded, that the deficiency a· salt deposits would not be derived singly from the normal application of cure solution.

B. Aggressive atmospheric factors such as the sulfur dioxide and rain could not produce the excessive salt deposits, especially when such salts would normally be sulfates which would readily wash away with the frequent rains.

C. An aggressive factor as alkali cement dust emitted from cement plants in the Fremont Bridge area, could have reacted with the Rust-ban inorganic zinc primer. Such alkaline reactions could have caused breakdown of the coating, producing a variety of soluble and insoluble salts, which rain could cause to flow away into patterns and salt deposits.

D. The extent of the salt deposits had to be derived from an ample source of material. The most logical material supply is the Rust-ban inorganic zinc primer itself. Under severe deterioration conditions, there could result salts that become insoluble and accumulate; with frequent rains several flow patterns can result.

E. In addition to the above, an additional source of salts could have been derived externally, adding to the salt source from the Rust-ban inorganic zinc primer plus the 195 cure solution. Although the sulfure dioxide finally reacts to form sulfates that have been identified as soluble and normally wash away by the frequent rains. However, with calcium compounds such as calcium oxide and calcium hydroxide (and some silicates) the sulfates that form are relatively insoluble calcium sulfate. These can accumulate and add to the salt deposits.

9. CONCLUSION

A. The deficiency as excessive salt deposits, with rust breaking through, on the subject plate (Photo #1) could not have been derived from normal application of curing solution.

B. The sulfure dioxide aggressive environment factor of its own could not produce the ample salt deposits since salts derived are readily soluble sulfates and would wash away by rain.

C. The alkali calcium products as clouds of dust from cement manufacturing plants near the Fremont Bridge site could have contributed to production of salt deposits by alkali reactions with the inorganic zinc primer.

D. The sulfur dioxide and the calcium cement dust, together or in sequence, could have contributed to the formation of excessive salt deposits.

E. The excessive salt deposits had to be derived from gross dislodging or deterioration of the inorganic zinc coating film, associated with rain to produce the flow patterns. Following the removal or fragmenting of the inorganic zinc film, the weakened coating permitted the extensive rusting. This destructive action had to happen prior to erection of the subject plate into the bridge structure. Such destructive action had to result from inorganic zinc coating that had not been fully cured and subjected to rain as the physical impact; or such destruction resulting from chemical aggressive environmental factors including sulfur dioxide and calcium alkali cement products, together or in sequence.

CAN TEST LTD.

1650 PANDORA STREET, VANCOUVER 6, B.C. • TELEPHONE 254-7276

October 12, 1972

Davies, Biggs, Strayer, Stoel and Boley
Twenty-Third Floor, 900 SW Fifth Avenue
Portland, Oregon
97204

Attention: Mr. Richard A. Franzke

Dear Mr. Franzke:

I was about to call you and tell you that I could not respond to your enquiry until I received the prints. The transparencies you sent with your letter are impossible to interpret, with any reasonable degree of accuracy. However before I got around to calling you, the prints arrived and they are clear enough that I think I can answer your questions.

It is impossible to identify the source of the apparent "Salt like" deposits that are evident in the pictures. Formation of white salts is a highly probable sequence of curing and/or transportation and/or storage without a protective seal coat. The manufacturers literature acknowledges that salts are formed as a consequence of the curing process but further points out that they are harmless and easily removed by washing off with water. If the white deposit is indeed salts they are not typical of the salts routinely apparent throughout the projects.

It should at this stage be pointed out that if the colour in the pictures is true the general colouration is very atypical of that produced by the Rust Ban 191 and 193. The colour in these pictures is a grey blue whereas the Rust Bans normally produce a silvery pink colour due to the small amount of iron oxide present in the zinc powder of the pigment.

If the colour is correct we would infer that some abnormal chemical change has taken place in the pigment in the areas where these pictures were taken. Since this colour is not at all typical of the general appearance we would have to conclude that the surface in the

areas photographed has been subjected to some chemical attack after the steel in question was shipped from the Canron plant. Assuming this to be correct any interpretation of the "white salt" like deposit must be associated with this reaction. If the colour in the pictures is not true then they lose all value as a reference.

As further evidence that the "salt like" deposit is unlikely to be associated with the spray applicater of the curing agent, the spray equipment for application of the accelerator would normally produce a pass approximately two feet wide, on this basis, about four passes would be necessary to cover a seven ft. deep member and there would be three areas of overlap on the side of the member. One would expect the excess "salts" to appear at the areas of overlap. This picture does not reflect that condition in any way. To the contrary, the 7 or 8 wave lines of salts, I would estimate, are on an average only about 5 or 6 inches apart. Even if it were assumed the "salts" are the result of some curing action there is no basis to assume in view of this dissimilarity in pattern, that they resulted from the application of the accelerator.

The dissimilarity between the close-up photograph and the erected member must also be noted. The narrow streaks in the close-up are very different from the blotchy, irregular deposits on the erected member. It is also significant that the deposits on the erected member do not show a consistent direction of flow. In fact, it is impossible to determine from this photograph whether the members were right side up or upside down when the "salting" occurred. We do know that the accelerator was applied in Canron's paint line while the members were upside down.

From our experience and from our examination of these pictures we would seriously question that the "white salt" deposits are the product of the curing accelerator. Can Test Ltd. conducted a number of experiments using different spread rates of curing accelerator and our tests produced some salt deposit only when we exceeded the recommended spread rate on the order of four times. If, however, accelerator had been applied to the member in the photograph at four times the recommended rate of coverage, there would have been two results:

A. Prior to shipment the member would have been rejected at the Canron plant because the coating at that time would have degraded to produce a soft, powdery, blistering and flaky surface.

B. Some relatively short time later substantially the entire surface would have been rusted. In the photograph however, there is only a single band of rust about 1/3 the distance down from the top.

I mentioned earlier that the zinc salts formed as a result of the curing process are removable by washing. One might expect that if the "salts" in the photograph were attirbutable to the accelerator they would show some evidence of washing due to the heavy rainfall in Portland.

While one can speculate at length about the nature and origin of the "white" deposits in the photograph, it is academic so to do. The important point, in our opinion, is that there is no correlation between the apparent rust and the distribution of the "white salt" deposits over the surface of the erected member. To the contrary (and this is true also in close-up photograph) there is rust above, within, and below the "salt deposit".

The physical appearance of the streaking apparent in the close-up photograph more nearly resembles the flow pattern of the accelerator which we many times observed. The manufacturer states and ordinary experience confirms that if a fluid with the viscosity of the accelerator is sprayed on a nearly vertical surface so as to "thoroughly wet" that surface some fluid will run down the surface and this will be evident as streaks.. Again, examination of the close-up photograph does not disclose a correlation between the presence of rust and the streaks on the surface. Some of the most pronounced rusting is in areas where there are no streaks and conversely where there are streaks there sometimes is no rusting. Again, it would appear there is virtually no rusting under the areas where the "white deposits" are the heaviest which of course is consistent with the total paint theory, i.e. protection of the zinc by accumulation of salts which fill the pores and prevent penetration of water to the substrate.

The rusting that is apparent in these photographs is not unlike that which was wide-spread throughout these projects, including members painted with Rust Ban 191, with which no curing accelerator was used.

In summary, we would offer the following comments:

1. We can not state with any certainty the nature of the "white deposits" apparent in these photographs. i.e. whether zinc salts and/or other soluble or insoluble salts.

2. From examination of the photographs we are inclined to believe that the "white deposits" evident on the erected member are not the result of application of curing acid since they are totally unlike the "salt" deposits we personally observed at the plant and throughout the project over a period of many months. Neither the pattern nor the distribution of the "salt" deposits in this photograph resemble what we saw or, indeed what one would expect considering the manner of application.

3. The colour of the paint film in the pictures gives rise to some doubt as to whether the paint film has not been subjected to attack by some chemical source.

4. Regardless of the origin and nature of the "salts", we cannot from these photographs see any correlation between the rusting and the presence of the deposits, except that the "salts" appear to have protected the zinc coating so that virtually no rust is apparent through the "salt" build up.

5. The rust apparent in these photographs is not unlike that we observed throughout both projects, affecting steel painted with both Rust Ban 191 and Rust Ban 193.

6. From previous laboratory testing we determined that application of excess accelerator caused visible damage to the zinc which was apparent very soon after application of the accelerator and which affected the adhesion and hardness of the primer coating. No such damage is apparent in these photographs.

In our previous report to you we stated that based upon our investigation and testing, in our opinion the loss of film thickness was inevitable and the consequential rusting would continue until a seal coat was applied over the zinc primer to protect it from the aggressive contaminants in the atmosphere. We adhere to that opinion.

Your photographs and slides are returned herewith.

Yours very truly,

CAN TEST LTD.

J. G. Smith

JGS:lr

October 4, 1972

Mr. Gordon Smith
Cantest Limited
1650 Pandora Street
Vancouver, B.C.
Canada

Dear Gordon:

I am enclosing herewith two transparent slides taken by the Oregon State Highway Department and furnished to us in connection with the study of the primer paint problem.

It has been suggested that these slides indicate excessive application of curing accelerator. Because you had occasion to view the paint operations during production and also to visit the site after the members were in place, I would appreciate your comments on these slides as they may relate to the overall primer failure.

I am having some prints made from these slides and I will send them to you when they are available.

While you should feel free to take whatever time is necessary to properly analyze this question, we are very anxious to conclude our discussions with OSHD, and, therefore, will appreciate your response as soon as possible.

Very truly, yours,

Richard A. Franzke

RAF:pm
Enclosures
CC: Canron Limited

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 26, 1972

SUBJECT: John Saroyan's Report on
Zinc Paint Failure
East & West Fremont Approaches

To: Walter Hart
Bridge Engineer
Salem

Your letter of September 20, transmitted a report by John Saroyan relative to a series of questions which had been submitted to him with respect to the zinc paint problem on the Fremont approaches. You requested our review of this document by Mr. Saroyan and any comments we might have.

In order to better examine this report, I separated it into two parts ---- (1) those questions and answers which deal with the blasting of the steel and the mechanics of getting the paint onto the girders which is covered by all questions except No.'s 6 and 9 and (2) those questions (6 and 9) which deal with events which occurred after the paint was applied and which might help explain the zinc problems.

Tabulated below for easy reference are the first set of questions dealing with the mechanics of painting. That column shown as "Evidence" was taken from Mr. Saroyan's report and the column entitled "Help Explain Problem" is my evaluation of Mr. Saroyan's answers.

	Cause	Evidence	Help Explain Problem
1.	Excessive blast profile	Course, rough, surface	Yes
2.	Insufficient atomization pressure	Orange Peel & Lack of adhesion	No
3.	Insufficient pot pressure	Granular, dusty, dry, porous coating	Yes
4.	Inadequate Agitation	(a) course, highly pigmented dull areas (b) very glassy, smooth areas (c) areas between (a) and (b)	Yes
5.	Excessive agitation	Modeled, spotty paint film This answer mentions cure solution RB 195. This was not used on RB 191.	Yes

NOTED
W. J. HART

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Cause	Evidence	Help Explain Problem
7. Excessive atomization pressure	Granular, dusty, porous film	Yes
8. Excessive Pot Pressure	Orange Peel and Lack of Adhesion	No
10. Gun too close to steel	Orange Peel and Lack of Adhesion	No
11. Gun too far from steel	Granular, dusty, porous film	Yes

You will note that my evaluation of answers (2), (8) and (10) is that these causes would not help explain the zinc paint problem. The reason for this conclusion is that the "Evidence" as given by Mr. Saroyan for these three causes is "Orange Peel" paint surface and lack of adhesion. To the best of my knowledge, orange peeling and lack of adhesion has never been mentioned as a problem with the 193 zinc paint. The evidence and effect given by Mr. Saroyan in the answers to the other questions in this first catagory (questions (1), (3), (4), (5), (7) and (11) do suggest that these causes could be contributors towards the zinc paint problem. However, it is my personal opinion that these probably did not play a very large role in contributing to the problem. All the "Evidence" listed is manifested in a very poor-appearing paint job. If we had any paint inspection at all in Vancouver, and I'm sure we did, the inspectors would have noticed this poor product and we would have had some mention of this. This is not to say that some of the "Causes" listed didn't occur and that they didn't have some bearing on the problem but I don't believe that the answer to the problem lies in the mechanics of putting the paint on the girders.

Question No. 6 deals with the consequences of exposing the freshly painted girders to rainfall. The answer assumes that RB 191 was postcured prior to exposure. This was not the case. This answer should be amplified with the understanding that the RB 191 was not postcured. RB 193 was postcured with RB 6851 but this answer does not mention RB 193. I would assume that the answer would be the same, but this should be clarified. It is very interesting to note that the "Evidence" given in the answer of a "blotchy" or a water stained area describes the steel girders as they were received in Portland.

Question No. 9 deals with the effects of application of various rates of acid curing solution on the freshly painted girders. Unfortunately Mr. Saroyan is talking about the application of RB 195 curing solution on RB 191 inorganic zinc. In actuality, RB 6851 acid cure, was applied over RB 193. It may be that the data supplied by Mr. Saroyan applies equally to the paint and acid actually used but this should be verified. My comments that follow assume that Mr. Saroyan's answer would be the same if he had been using the correct formula numbers.

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Saroyan goes through a chemical analysis of the acid cure and paint to end up verifying that Enjay's recommendation of using 1/2 gallon of curing acid per gallon of inorganic zinc is correct. He then goes on to calculate a spreading rate for the acid based on an assumed spreading rate for the inorganic zinc. By assuming that the zinc was applied three dry mils thick over the peaks of the profile and further that the profile was a mil and a half to two mils deep, he concludes that the spreading rate for the zinc was 200 square feet per gallon and that, therefore, the spreading rate of the acid was correctly stated by Enjay at 400 square feet per gallon.

Mr. Saroyan's assumptions are based on the data that has been supplied him. However, I believe that some refinements should be made in these assumptions. With respect to the thickness of the film, a modification was made early in the project with respect to where the top of the blast profile stopped and the bottom of the paint film started and I am reasonably sure that some projection of the blast profile into the paint film was allowed when it came to measuring the film thickness. Secondly, when the change was made to RB 193, since it had better adhering qualities, the requirement of a one and a half to two mil anchor pattern was dropped in favor of obtaining a near-white blast. As a result, it was reported that the anchor profile used for the 193 paint was a half mil thick.

Therefore, where Mr. Saroyan assumes that there is a total of four and a half mils of zinc paint on the steel for spreading rate purposes, I believe a closer approximation would be on the order of three mils, say two and a half mils for the paint thickness and a half a mil allowed for filling the blast profile, giving a total of three mils. This would give a spreading rate for the zinc paint of 300 square feet per gallon and a spreading rate for the acid of 600 square feet per gallon. Since Canron was instructed by Enjay to use a spreading rate of 400 square feet per gallon and further, assuming that Canron painters may have used the theory that if a little is good a lot is better, it is conceivable that the amount of acid cure actually applied may have approached double that actually required.

If one can correctly hypothesize that the amount of curing acid actually applied is anywhere near double that which should have been applied then it is not difficult to explain what happened to the inorganic zinc paint when one reads Saroyan's "effects" of the application of acid at a rate of 250 square feet per gallon when he is assuming that 400 square feet per gallon is the correct rate. The "effects" as described by Saroyan of this "overdose" of acid describes almost exactly the phenomenon of zinc paint disappearance which we actually experienced. In my memo of April 8, 1971 written after visiting Canron's paint line in Vancouver, there is a statement that "Gordon Smith of CanTest has a theory that the phosphoric acid which is being used for the post-cure is absorbed deep into the zinc coating, possibly clear to the base metal, then later when the paint is exposed to moisture the unused acid is reactivated, comes to the surface and softens the surface of the zinc". If it can be shown that excessive acid was applied to the inorganic zinc, then Gordon Smith's theory takes on added significance.

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The above-mentioned assumption of a total of three mils of zinc yielding a spread rate of 300 square feet per gallon of zinc is predicated on the operation in Canron's plant prior to the discovery of the paint problems in Portland. After this point in time, Canron made a deliberate effort to put more zinc on the girders and even went so far as to apply two coats. They have recently told us that even these girders have given trouble in Portland.

If these latter girders have also had zinc paint problems and perhaps Mr. Shotwell can comment on this, I believe this also can be explained by the application of acid cure. If you assume the milage of zinc put on in the latter condition is 5 to 5-1/2 mils with an additional allowance of a half mil for the profile covering, then a spreading rate for the zinc would be on the order of 150 square feet per gallon which would give a spreading rate for the acid of about 300 square feet per gallon. If you also assume that at this point in time Canron's people were following Enjay's recommendations for acid spreading rate more closely, and my memo referred to above mentions an acid spreading rate of 460 square feet per gallon, then you would have the situation where not enough acid was being applied and the effect described by Saroyan under his spreading of 800 square feet per gallon would apply. According to Saroyan, this condition would also promote premature rusting because the paint would not be adequately cured out.

Under the answer to question 9, Saroyan comments on the transparencies sent him. I didn't see these, but if they were typical of our problem, and I presume they were, his comment that they depict an obvious excess of curing solution is particularly significant in light of what I have said above.

I have sent copies of this letter to the three Resident Engineers on the Fremont project hoping that they would comment on my review as well as Saroyan's report and send their thoughts on both to you.

H. S. COULTER
Metropolitan Engineer

By: Edward L. Hardt

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson
R. E. Shotwell
John Howard
R. O. Cunningham
Dean Mandrell

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5

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OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

7310

DATE November 8, 1972

TO G. L. Green, Division Engineer
~~R. E. Chapman, Division Engineer~~
Federal Highway Administration

Federal-aid Project
No. I-405-8(22)304

ORIGINAL SIGNED BY
R. D. ASBURRY

FROM L. H. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7310, Extra Work Order No. 19

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This Order covers the cost to modify the sign support for signs 16, 17 and 18 to allow clearance between the top chord of the Trylon and the bottom of the trapezoidal girder. The contractor manufactured the sign support as per the plans but the support would not fit at its installation point and had to be modified.

Copies of the engineer's letter of explanation are attached.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer October 13, 1972 retroactive to October 10, 1972, date work started.

Your approval as of October 10, 1972 is requested.

MWWibb

Attach.

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

NOTED
A. E. JOHNSON

November 2, 1972

RECEIVED
NOV 3 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Mr. Glen L. Green
Division Engineer
Federal Highway Administration
477 Cottage St. N. E.
Salem, Oregon 97308

Dear Mr. Green:

East and West Fremont Intch.
Inorganic Zinc Paint System
East and West Fremont Intch. Sections
Contracts 7214, 7310, and 7311

In July of this year the legal counsel for Canron and the Highway Division jointly engaged the services of Mr. John Saroyan to comment on problems with the inorganic zinc primer paint system on the Fremont Interchanges. Mr. Saroyan was requested to comment on a series of paint related questions. A copy of the questions posed and Mr. Saroyan's answers is enclosed. This material is being sent to you for your review and comment.

Mr. Saroyan is a civilian employee of the U. S. Navy and an acknowledged expert on zinc paint and its use. His opinions must be considered to have significant weight in any discussion of this paint problem.

A meeting between the members of our staffs to discuss future action on this subject is in order. Subject to your concurrence the meeting is tentatively scheduled for November 14 at 1:30 p.m. in the Bridge Office of the Highway Division.

Additional prints of the pictures referred to in Mr. Saroyan's "Comments on Fremont Bridge Primer Problem Study of Color Photographs in Regards to Plates Section with Unusual Excess Salt Deposits" are not available. One set of prints is on file in the Bridge Office if you wish to view them.

Very truly yours,

George M. Baldwin
Administrator of Highways
By Walter J. Hart
Walter J. Hart
Bridge Engineer

WJH/ag
Attachs.
cc A. E. Johnson
L. I. Lindas
H. S. Coulter
R. Shotwell
J. Howard

FORM E-30 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

730

Portland, Oregon 97213
October 26, 1972

To: Walter Hart
Bridge Engineer
Salem

SUBJECT: John Saroyan's Report II
East & West Fremont Approaches

NOTED
A. E. JOHNSON

Your letter of October 5, transmitted the second installment of Mr. Saroyan's answers to questions posed relative to Fremont Interchange painting and requested our comments which follow.

Question B-1 and B-2 deal with (1) putting vinyl directly over zinc and (2) applying five mils of vinyl in one coat. This is an after-the-fact examination of the method of applying vinyl on the East and West Interchange projects. Other than hope that this vinyl does not fall off the steel, I find little to comment on these two answers except that since Saroyan recommends applying vinyl in multiple thin coats to allow the maximum solvent release, this would explain our problem of bubbling and pinholing with one coat of vinyl. Since much of the vinyl has not as yet been put on the Fremont Superstructure, perhaps we should investigate the adhesion of the Mobil vinyl to the zinc on the structure to determine if adhesion could be a problem.

Question B-3: no comment.

Question C. Saroyan goes through a chemical analysis to show what happens when the inorganic zinc is exposed to an atmosphere containing sulpher dioxide. The important point in respect to Portland's "corrosive atmosphere eating away the inorganic zinc" is the time involved. I am confused by Saroyan's answer to Question C with respect to the time for the chemical reaction because in the third from the last paragraph on page 2 he mentions the word slowly in connection with the washing action. Yet in his summary of this question, he uses the word quickly with respect to this process. I believe the time for the zinc to be eroded to the point of rusting is most critical. Enjay's recommendation for hydrogen sulphide content for Rust Ban 191 use is 300 parts per million. The sulpher dioxide concentration in the Portland atmosphere during the most critical period was 0.03 parts per million. Assuming the chemical reaction to the inorganic zinc of these two pollutents is on the same order and I would have to defer to a chemist for confirmation of this, it is hard to imagine how the low concentration of sulpher dioxide compared to that recommended for hydrogen sulphide by Enjay could completely break down the paint system in a matter of two or three months. I can only think that the answer lies in the fact that the inorganic zinc in Portland was not properly cured so that it could not withstand the attack of the sulpher dioxide.

Question D refers to an acceptable paint system and since it is not particularly germane to the inorganic zinc problem in Portland, I have no comment.

Question E: Since I don't understand the chemistry involved in Saroyan's answer to this question, I cannot completely comment on it. However, it appears as though he is talking about what might happen to the inorganic zinc if curing hasn't taken place. If this is the case, then the question of whether or not the inorganic zinc applied in Vancouver, B.C. was properly cured would have to be taken into account when analyzing this answer.

Question F and G: No comment.

Question H: I have no comment on Saroyan's remarks with respect to small test panels. I have observed many test panels at the Bonneville Power Administration's laboratory in Vancouver, Washington. They would be a good source of information if some was desired on this question.

Question I and J: No comment.

Question K deals with the rust "stain" which has been noticed on parts of the Fremont girders. I don't believe that this stain played a significant part in the breakdown of the inorganic zinc because I was never able to correlate the presence of the stain with the rust breakout on the girders. Perhaps Resident Engineers' Shotwell and Howard can comment more thoroughly on the correlation between stain and rust breakthrough.

Question L: Saroyan is assuming that the paint application process in Vancouver, B.C. was not deficient since "all factors were controlled, inspected and certified". The only uncontrolled variable in the whole sequence then could only be the environment in Portland and, therefore, he concludes that this must be the cause of the problem. I cannot necessarily accept this assumption as I have mentioned in my analysis of Saroyan's first set of answers since there is a strong question in my mind with respect to the proper curing of the inorganic zinc in Vancouver.

Question M: The answer to this question is the key to my thinking that the degree of cure of the inorganic zinc is more crucial than the environment in Portland. Saroyan is saying here that once the zinc is properly cured that the Portland environment has no effect on it. Therefore, when the girders are affected by the environment, it follows that they were not properly cured. This goes back to the application of the curing acid in the plant in Vancouver and my comments contained in my answer to Saroyan's first set of questions with respect to acid cure.

Question N: The answer to this question confirms my thoughts as expressed under Question M--namely, that the cure is more important than the environment. Saroyan states "once the inorganic zinc coating has cured and has demonstrated ability to self cure under those conditions, it probably has more resistence to agressive environmental action". I believe he is saying in this answer that the Mobil zinc applied in San Francisco was properly cured so that the Portland environment has little or no effect on it.

Question O: No comment.

Question P: We came to the same conclusion as Saroyan and we have equipped the field offices with the Elcometer gage. Incidentally, we had a session with Canron's paint consultant, CanTest, and calibrated our gages with theirs so that there would be no argument about paint thickness readings on the project.

Question Q: Saroyan says he believes the fundamental cause for the inorganic zinc paint failure is the aggressive atmosphere at the site. In previous answers he has shown how sulpher dioxide will react with the inorganic zinc and cause chemical breakdown. Chemically I am sure this is true. However, he has made no showing as to the time involved for the sulpher dioxide to breakdown three mils of properly cured inorganic zinc paint. He has shown in Question M that this aggressive atmosphere has no effect on <u>properly</u> cure zinc. Therefore, the key to the problem would seem to lie in whether or not the paint was properly cured rather than the environment in Portland.

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
R. E. Shotwell
R. O. Cunningham
John Howard
John Jenkins

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OCT 30 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

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DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6348

October 12, 1972

TRIAL DIVISION

JOHN E. MOORE
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH A. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

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JOHN R. McGULLOCH
FRANK C. McKINNEY
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R. KEN ROBERTS
JIM G. RUSSELL
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA H. SORENSEN
ASSISTANT ATTORNEYS GENERAL

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REFER TO
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FOR
Info | Prepare | RD | DIR | Sign | Act | File

Mr. Armand Riveness
Condemnation Supervisor
State Highway Building
Room 111
Salem, Oregon 97310

NOTED
F. B. KLABOE

Re: State Highway Commission vs. Oregon-Washington & Navigation Co.
Multnomah County Circuit Court Case No. 379-083
(L-6682 R-36087)

Dear Armand:

I forward herewith material to be added to the above mentioned case by Amended Complaint to be inserted at paragraph (3) of page 4, following line 27. As you can see, the material is a list of conditions under which the State will acquire its easement over the railroad property for the easterly portion of the Fremont Bridge.

The State negotiated with the Railroad and obtained a Permit of Entry which is in the form of a contract executed by the defendant Railroads and the Highway Commission. Exhibit "D" to said agreement incorporates under paragraph (7) the limitations on the type of building and the manner in which the defendants can use the easement area under our bridge structure. All of these terms are included in our Complaint. Paragraphs (1) through (6) of said Schedule "D" contains conditions and terms under which our easements would be acquired. These provisions were not included in the Complaint. The railroad attorneys insist they have a right to have the conditions included in the case.

When the defendants filed there Answer to the Complaint, they made references to the Permit of Entry agreement and attached a copy to this agreement. I discussed this matter at length with Mr. Lindas, Mr. Sollis and Mr. Litchfield. A decision was made as follows:

The Permit of Entry is a binding contractual agreement agreement between the Highway Commission and the Railroad.

Most of the terms set out in the attached material is surplus and merely spell out legal ramifications already incorporated in our Complaint. For example, since our easement is for the overhead crossing of the bridge and the supporting bents if we permanently ceased to use it, it would revert to the railroad in any event. Because our easement is for a limited purposes, the railroad, without listing them, would have the right to use the easement areas for any purposes that would not interfere with our easement rights.

The provisions limiting out rights to add additional power and communication line and prohibiting gas, or gasoline pipelines on our bridge structure are not inconsistent with the contruction and maintenance of our structure in the judgment of Mr. Litchfield, Railroad and Utilities Engineer.

Regardless of the pleadings, we cannot for practical purposes interfere with the communications or other operating aspects of the Railroad. The final decision was that it is advisable and would make a better impression on the jury to set out "both sides of the agreement" in an Amended Complaint.

I would appreciate the filing of the Amended Complaint at the earliest possible date.

Very truly yours,

LEE JOHNSON
Attorney General

Leslie B Hampton

Leslie B. Hampton
Assistant Attorney General
Trial Division

LBH:gv

Enclosure

cc: Tom Edwards
L. I. Lindas
D. H. Moehring
W. J. Hart
H. S. Coulter
T. W. Litchfield

State Highway Commission vs. Oregon-Washington Railroad & Navigation Co.
Multnomah County Circuit Court Case No. 379-083
(L-6682)(R-36087)

In utilizing the easement being obtained herein, plaintiff agrees that:

(1) Plaintiff shall not encroach upon, occupy or use or permit others to encroach upon, occupy or use other property owned by defendants and not included in this acquisition.

(2) Plaintiff shall not use or permit others to use the easement areas or any part thereof, for any use other than the uses for which the easement is being acquired. Without limiting this provision, plaintiff agrees:

(a) Plaintiff shall not use or permit others to use the easement areas, or any part thereof for railroad purposes, provided, however, this provision shall not prohibit the use of plaintiff's bridge structure for a rapid-transit system that is within the design capabilities of said structure and does not interfere with defendant's railroad operation.

(b) Plaintiff shall not allow any gas, oil or gasoline pipe line to be constructed or installed over or across the easement area or any part thereof.

(c) Plaintiff may install additional electrical power for communication lines, incidental to its use of the easement area for highway purposes, provided that

said lines are constructed in accordance with specifications and in a manner that will not adversely affect the present or hereinafter installed communication or signal lines of the defendant's or their licensees. Prior to constructing or installing such electrical or communication line, plaintiff shall submit plans and specifications to the defendants for approval.

(3) Plaintiff shall take title to the above easement subject to the right, title and interest, if any, of others than the within named defendants in said real property.

(4) The plaintiff in exercising its right under the easement, shall not destroy or interfere with the property or rights of third parties, in, upon, or relating to defendants property, and plaintiff shall be responsible for such damages, if any, to said third parties.

(5) Defendants shall have the right to use or to grant to others, the right to use the real property being acquired by this proceeding for any and all purposes not inconsistent with the rights of the plaintiff in the easements being obtained including, but not limited to the right to construct, reconstruct, maintain, operate, repair, alter, renew and replace existing and additional wire lines, pipe lines, tracks, facilities, and appurtenances, located or to be located either wholly or partially within the easement area in such manner, however, as not to damage the highway structure or facilities located or to be located in said easement

areas.

(6) Defendants may attach signal, or powerlines and facilities to plaintiffs Bridge structure located over the easement areas, subject, however, to plaintiff's policy on utility installation and approval by plaintiff of detailed plans to be submitted by defendants.

(7) If the property rights being acquired by the plaintiff and its structure and facilities located thereon shall become subject to taxation, plaintiff shall be obligated to pay any such taxes assessed thereon.

(8) If any property or rights other than the easements hereby being obtained become necessary for the construction, maintenance and use of the highway structure and facilities, or for the performance of any work in connection therewith, plaintiff shall acquire such property or rights at its own expense and without expense to defendants.

(9) If at any time the easement being obtained, or any part thereof shall permanently cease to be used for the purposes for which the easement is being obtained, then the easements, or parts thereof, shall cease and terminate.

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OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE October 5, 1972

TO Mr. H. S. Coulter
Metropolitan Engineer Attn. Mr. E. L. Hardt

FROM Walter J. Hart
Bridge Engineer

ORIGINAL SIGNED
WALTER J. HART

SUBJECT Fremont Bridge
Paint Problem

Attached is a copy of the second installment of Mr. Saroyan's answers to the questions posed relative to the painting on the Fremont interchanges.

Please review this material and advise this office of points of concurrence or disagreement with the conclusions reached by Mr. Saroyan.

WJH:dh
Attachment

cc A. E. Johnson
L. I. Lindas
R. O. Cunningham
R. E. Shotwell
J. D. Howard
Ed Rief
John Jenkins

NOTED
A. E. JOHNSON

RECEIVED
OCT 6 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

1320 Carl Ave.
Vallejo, Calif. 94590
Home Phone: 707-642-0387
Work: 707-646-3203

September 27, 1972

AIR MAIL

(1) Mr. Richard A. Franzke
Davies, Biggs, Strayer, Stoel and Boley
Twenty-third Floor 900 S. W. Fifth Ave.
Portland, Oregon 97204

(2) Mr. Leonard I. Lindas
Department of Justice
408 State Highway Building
Salem, Oregon 97310

Gentlemen:

Enclosed are the answers to Questions B through Q. Also included is the summary of time spent. The total bill is for $1,995.00 or $997.50 for each of you.

Mr. Terry Lawry informed me by phone that you needed to review the transparencies (color slides) you sent me. They (2) also are enclosed in the package for Mr. Richard Franzke.

I will be leaving for Washington, D.C. area on October 1st and plan to be back around Oct. 27th. From Oct. 1-13 I can be reached (leave message if not in) at Park Central Apt. Hotel in Wash. D.C. 202-393-4700. From 13-17 Oct. I will be at The Chrisopher Inn - Columbus, Ohio (also can contact me 16-17 Oct at Battelle Memorial Institute, Columbus.)

Trust that all is going well with both of you. Please let me know if further information is required. Best regards

Sincerely, /s/ John R. Saroyan

Summary of billing from Sept. 9, 1972, to Sept. 27, 1972, for professional consultant services given in connection with the Fremont Bridge coating problem.

	DATE	HOURS WORKED
1.	Sat Sept 9	5
2.	Sun Sept 10	5
3.	Mon Sept 11	1
4.	Wed Sept 13	3
5.	Thurs Sept 14	2
6.	Fri Sept 15	4
7.	Sat Sept 16	6
8.	Sun Sept 17	4
9.	Wed Sept 20	4
10.	Thurs Sept 21	2
11.	Fri Sept 22	3
12.	Sat Sept. 23	4
13.	Sun Sept 24	4
14.	Mon Sept 25	4
15.	Tues Sept 26	4
16.	Wed Sept 27	2
	Total	57 hrs.

at $35/hr. 35 x 57 = $1,995.00

each pay one-half or $ 997.50 each

submitted:
September 27, 1972

/s/ John R. Saroyan
John R. Saroyan

B. Question

Generally, comment on the advisability of:

1. Putting vinyl directly over zinc.

Answer

Before applying vinyl over the inorganic zinc coating, the surface must be free of any white deposits resulting particularly from post cure agents. The white deposits should be removed by high pressure fresh water rinse. Mechanical scrubbing should also be used if necessary.

For inorganic zinc coatings that have been approved under MIL-P-23236 or under Naval Ships Technical Manual, Chapter 9190, and properly washed of the white deposits, a thin coat, maximum 1 mil dry film, of red lead vinyl, Formula #119 (MIL - P - 15929) is applied as a tie coat.

Although the above practice has resulted in some satisfactory applications, where #119 has served as a tie coat, promoting good adhesion between the inorganic zinc primer and the topcoat or finish coat of vinyl, there have been some classical failures. Vast sheets of vinyl have peeled off the inorganic zinc primer.

An analysis of the conditions that promote good adhesion and those that induce and cause poor adhesion and peeling, when #119 is used as the tie coat, have been studied microscopically. The attached three color slides (photomicrographs) show the surface contour or profile of cured inorganic zinc coatings. The surface of Rust-Ban 191 as shown in the slide, is only slightly rough. The slide for Rust-Ban 190 shows a rather smooth surface. In contrast, the profile for the experimental B-3 inorganic zinc coating is very rough and porous.

Loss of adhesion of topcoats using vinyl #119 as a tie coat can be explained by identifying the surface profile of the inorganic zinc. If the surface is relatively smooth, adhesion must be derived from chemical bonding. Hence, with a tie coat such as #119, there is insufficient chemical adhesion. If the #119 is applied too thick, there develops a coating with high cohesive strength and in incidents of stress (thermal shock, etc.) is prone to exhibit poor adhesive strength. Also, if the #119 is applied thin, perhaps necessitating the addition of extra solvent, penetration of the #119 into the porous inorganic zinc can occur. Here, besides being functional as a tie-coat, the thinned #119 can serve as a seal coat. Incomplete contrast, when the inorganic zinc profile is rough, the surface per unit area is increased considerably and mechanical adhesion is promoted. This is a direct corollary to improving adhesion by abrasive blasting a surface.

The following experiments were conducted in regards to surface profile of inorganic zinc coatings top coated with vinyl #119 and immersed in brackish water for 3 months*:

*"Inorganic Zinc Coatings in the U. S. Navy" by John R. Saroyan, presented at the National Association of Corrosion Engineers, Western Region Conference, Phoenix, Arizona, 28 October 1964.

Test Panel	Inorganic Zinc Coating Surface Profile	Adhesion of #119 (To Inorganic Zinc)
1. Galvanized Steel	1. Very smooth	1. Poor adhesion, blistering and peeling.
2. Experimental Lab Inorganic Zinc #51	2. Quite smooth	2. Poor
3. Experimental Lab Inorganic Zinc #52	3. Rough	3. Good
4. Commercial Inorganic Zinc I.D. #53	4. Quite smooth	4. Poor
5. Commercial Inorganic Zinc I.D. #54	5. Some roughness	5. Fair
6. Commercial Inorganic Zinc I.D. #55	6. Quite smooth	6. Poor

Vinyl coatings can be applied directly on inorganic zinc coating, Rust-Ban 191 (or 193) provided the following conditions are met:

1. The surface is free of white salt deposits.
2. The surface is clean otherwise: No oil, grease, dirt, etc.
3. The surface is relatively rough and normally porous.
4. The vinyl is applied as a low viscosity material, solvent being added to get the low viscosity.
5. The applied vinyl be no more than 1 mil dry film.

See attachment #7 for additional information from Enjay literature for "Topcoating Inorganic Zincs."

Test Panel	Inorganic Zinc Coating Surface Profile	Adhesion of #119 (To Inorganic Zinc)
1. Galvanized Steel	1. Very smooth	1. Poor adhesion, blistering and peeling.
2. Experimental Lab Inorganic Zinc #51	2. Quite smooth	2. Poor
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3. The surface is relatively rough and normally porous.
4. The vinyl is applied as a low viscosity material, solvent being added to get the low viscosity.
5. The applied vinyl be no more than 1 mil dry film.

See attachment #7 for additional information from Enjay literature for "Topcoating Inorganic Zincs."

B. Question

Generally, comment on the advisability of:

2. Using 5 mils of hi-build vinyl in one coat (viscosity over 125 KU)

Answer

The disguise of a single thick coat versus multiple coats as being more economical has been the theme of recent "sales pitches" as a cost-reduction devise through labor savings. This is still controversial matter now and in some governmental circles (Navy) such a criterion cannot be used when bidding on paints. Only what is in the container and not the way it is applied or any other alleged cost savings can be reflected in the bid price.

As discussed in the previous question, B-1, to obtain good adhesion of vinyl over inorganic zinc, a thin coat, a mil or less dry film, must be applied.

From attachment #8, under multiple coats, the following additional criteria are discussed:

1. Multiple coats, of varying colors, should be used to obtain complete, uniform coverage.

2. For coatings that contain solvent, multiple thin coats rather than fewer thicker coats permit the maximum release of solvent.

Summary

Generally, using 5 mils of hi-build vinyl in one coat on inorganic zinc is not advised. Loss of adhesion can result. Also, there can be uneven varying applications with runs and sags or orange peel roughness.

B. Question

Generally, comment on the advisability of:

3. Using a vinyl wash primer or some other seal coat.

Answer

Vinyl wash primer, formula 117 (see attachment #11) - MIL-P-15328- is a two package composition. One component is an alcohol solution of polyvinylbutyral resin in which basic zinc chromate is incorporated. (A little lampblack for tinting and other additives can be included.) The other component consists of an alcohol solution of phosphoric acid. At the time of use, the two components are mixed and used as a "wash" coating after about one-half hour incubation period.

Although several competing reactions take place within the mixed composition, some free phosphoric acid still remains. It is through this free phosphoric acid that certain amount of adhesion is developed when #117 is applied over steel or galvanizing (zinc).

Attachment #9 discloses that wash primer improves adhesion of coatings to zinc. Since inorganic zinc coating contains a very high percentage (85%) of zinc, it follows that wash primer should promote adhesion of coating to it. Also, the free phosphoric acid should serve as curing agent for inorganic zinc coatings such as Rust-ban 191 or 193.

Attachment #10 states that the acid component of #117 wash primer serves as a curing agent for Rust-ban 191 and that the separate application of curing solution is not required.

The following experiments* (partly reported under Question B-1, are included here in its entirety: (3 months immersion in brackish water)

Test Panel	Inorganic Zinc Coating, Surface Profiles	Adhesion 117+119	Adhesion #119
1. Galvanized Steel	1. Very smooth	1. Good	1. Poor adhesion Blistering and peeling.
2. Experimental Lab Inorganic #51	2. Quite smooth	2. Good	2. Poor
3. Exp. Lab #52	3. Rough	3. Good	3. Good
4. Commercial Inorganic Zinc #53	4. Quite smooth	4. Good	4. Poor
5. Commercial Inorganic Zinc #54	5. Some roughness	5. Good	5. Fair
6. Commercial Inorganic Zinc #55	6. Quite smooth	6. Fair	6. Poor

*"Inorganic Zinc Coatings in the U.S.Navy" by John R. Saroyan. Presented at National Association of Corrosion Engineers, Western Region Conference, Phoenix, Arizona, 28 October 1964.

Summary

Wash primer, formula #117 (MIL-P-15328) may be used over Rust-ban 191 to promote adhesion, seal, cure and serve as a tie-coat for vinyl topcoats. No other curing solution need be applied. In fact, if a cure solution like Rust-ban 195 has been applied, then there would be some risk in applying #117 over this. With additional phosphoric acid from the #117, there could be loss of adhesion. Also, #117 as such, cannot remain as a topcoat since it will be subject to environmental attack. It needs to be topcoated with vinyl, epoxy, etc.

ATTACHMENT #9

galvanizing (MIL-Z-17871) is used to protect thin-gage steel plates for submarine superstructures and ship topside structures. Bilge surfaces and voids are galvanized to provide added corrosion protection. Hardware such as nuts, bolts, washers, brackets, and braces is galvanized to promote longer useful life.

For marine surfaces not immersed in water, zinc metallic coatings, such as galvanizing, may last for years. Zinc would provide long years of protection on the decks of ships if it were not for the fact that it becomes very smooth and hazardous, and nonslip topcoats are required for safety.

The zinc metallic coating can be considered a large zinc anode that wastes away in seawater to provide corrosion protection to bare-steel areas resulting from damage or "holiday" painting. Fouling protection, however, is only for short periods, depending upon the incidence of fouling and the amount and nature of the corrosion products formed on the surface. The most efficient use of a zinc coating underwater is to topcoat it with organic protective coatings, including antifouling paints. Adhesion to zinc can be a problem unless there has been prior chemical etching, weathering, or abrasive blasting. A successful approach in improving adhesion of coatings to zinc is the use of a wash primer, MIL-P-15328, formula 117.

Once galvanizing is depleted or damaged because of anodic action, burning, welding, or abrasive blasting, the repair of these areas is difficult. In some cases flame-sprayed zinc has been applied to areas where galvanizing was damaged or depleted. This is a slow and costly process, and it leaves a porous film that is very reactive to moisture. Effective touch-up painting of damaged galvanized areas is done with coatings containing zinc dust. The performance of such zinc coatings is so excellent that today they are often used as replacements for galvanizing.

Inorganic zinc coatings have been evaluated and placed on the qualified-products list of MIL-P-23236. Tests have shown that (1) a hydrolyzed tetraethyl orthosilicate zinc coating of 92.2 percent by volume of zinc in the dry film approaches but does not equal the cathodic-protection properties of a zinc anode; (2) inorganic zinc formulations are a little more effective than the organic formulations; and (3) posteured inorganic-silicate types are a little more effective than the self-cured types.

Zinc-rich coatings as a replacement for zinc anodes[44,47] must necessarily provide cathodic protection at a distance. However, as a substitute for galvanizing[47] they need not operate at any significant distance.

Cadmium Coatings. Cadmium, which is similar to zinc in chemical properties, is electronegative to iron or steel[48] and will cathodically protect such surfaces in a galvanic cell. The potential difference between cadmium and iron is less than that for zinc and iron. Therefore cadmium does not protect as large an area of exposed iron as does zinc. Cadmium darkens less than zinc and does not form bulky white corrosion products as readily. It can be more readily soldered without the use of corrosive fluxes. Unlike zinc, which is applied to steel successfully by hot dipping, cadmium coatings are applied by electroplating.

Steel plates coated with 0.0002 and 0.0005 in. of cadmium and zinc were exposed at the severe marine atmosphere at Kure Beach, North Carolina, and in an industrial-marine atmosphere in New York.[49] The results of the test showed that zinc-coated specimens were slightly better in New York than the cadmium specimens, but the cadmium was found to be several times more effective in protecting steel than zinc at Kure Beach. Salt-fog tests have shown cadmium to be more effective than zinc.[48] In salt-fog tests one test piece of two anodized aluminum castings bolted together with zinc-coated steel bolts and washers was subjected to the salt fog for 240 hr. The anodizing did not prevent general macrocorrosion on the surface of the aluminum panels. The zinc-coated washers and bolts showed corrosion. Also, there was anodic corrosion under the washer area on the aluminum panel. Apparently the steel of the bolt was exposed and formed the active steel-aluminum galvanic cell.

Another test unit consisted of two anodized aluminum castings bolted together with cadmium-coated steel bolts and washers. This unit was also subjected to the salt fog for 240 hr. The cadmium plating offered more protection to the aluminum than the zinc in the previous test specimen. Furthermore, there was only a slight amount of corrosion of the cadmium on the bolts and washers, furnishing good protection at the

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With RUST-BAN 190, curing treatment may normally be applied within 1-2 hours after the film has dried (an even gray color is reached), at which

vinyl wash primers, however, are somew unsuitable for other than polyvinyl chloride b systems. Enjay Wash Primers, RUST-BAN VY (yellow, Y-1), for example, should age for 5

Attachment #10

not recommended for use in contact with strong acids or alkalis (reagents with pH values below 6.5 or above 10.0), chlorinated hydrocarbons, and crude oils with acid numbers above 0.4 or hydrogen sulfide content above 300 ppm.

More detailed information can be obtained from your Enjay representative.

Mixing and application procedure

The service life of RUST-BAN 186, 188, 190 or 191 is largely dependent on the care with which each is applied, a matter fully covered in the instructions which accompany each package. These coatings are two-part systems packaged in one-gallon or five-gallon containers. One container marked "A Liquid" contains the liquid vehicle; the other, marked "B Powder" contains zinc dust. The powder is thoroughly mixed *into* the liquid. At 70-90°F (21-32°C) the resulting mixed product has a pot life of 8-12 hours for RUST-BAN 188, 24 hours for RUST-BAN 190 and 120 hours (5 days) for RUST-BAN 186 and 191.

The prepared coating material should be sprayed only with the proper recommended application equipment (Refer to Service Data Section—"Spray Equipment for use with RUST-BAN Protective Coatings."). The coating should be applied to a surface which has been freshly blasted to near-white (SSPC-SP10-63) (S.S. Sa2½) or white metal (SSPC-SP5-63) (S.S. Sa3), depending on the ultimate exposure. For example, Enjay recommends a near-white blast for mild abrasion, general atmospheric exposures and where economy is a prime consideration. For severe atmospheric abrasion or immersion exposures, however, a white metal blast is recommended.

RUST-BAN 188 (self-curing), under normal conditions (50-95°F, 10-35°C air temperature — 50-90% relative humidity), will reach a water insensitive state within 20 minutes and may be topcoated in 12-16 hours.

With RUST-BAN 190, curing treatment may normally be applied within 1-2 hours after the film has dried (an even gray color is reached), at which time, it is sprayed with a coat of curing solution, RUST-BAN 195. After a curing period of 18-24 hours, the surface will have developed full resistance to the weather. Once the salts, formed by the curing reaction, and excess curing solution have been removed, RUST-BAN 190 can be topcoated or placed in service. (The salts and excess curing solution are usually removed by high pressure water, sometimes supplemented by scrubbing.)

RUST-BAN 186 and 191 — being self-curing — require no additional treatment. Under normal conditions (50-95°F, 10-35°C air temperature — 50-90% relative humidity), RUST-BAN 186 and 191 are water insensitive within one hour and can be placed in service or topcoated in 8-12 hours. Outside of these limits, curing may be faster or slower, depending on which extremity of weather prevails. Adverse weather conditions require special precautions outlined in the application instructions. Also, specific drying schedules for most weather conditions are outlined in the application instructions.

Post-curing of RUST-BAN 191 (or RUST-BAN 186)

While RUST-BAN 191 is certainly a self-curing product, it has the unique advantage that it can be rapidly cured with an accelerator. Either way, post- or self-cured, the significant chemical and physical properties of the cured RUST-BAN 191 film are essentially the same. When it is desirable to accelerate the self-curing properties of RUST-BAN 191, RUST-BAN 195 curing solution provides superior results and should be used.

One exception to this is when a polyvinyl chloride coating system (including a vinyl wash primer) is to be used in topcoating RUST-BAN 191. In this type of system, the acid component of the vinyl wash primer accelerates the cure of the RUST-BAN 191 sufficiently, so that the separate application of a curing solution is not required.

Vinyl wash primers, however, are sometimes unsuitable for other than polyvinyl chloride topcoat systems. Enjay Wash Primers, RUST-BAN VY 6528 (yellow, Y-1), for example, should age for 5 days

HANDBOOK : OCEAN AND UNDERWATER ENGINEERING
McGRAW-HILL-MYERS
ATTACHMENT #11
PAGE 1

PROTECTIVE COATINGS

Coating thicknesses of at least two, and preferably three, times the average peak height are recommended for corrosion protection. Table 7-17 illustrates performance of an alkyd metal primer related to profile and film thickness after exposures in a salt-fog cabinet. The test results show that thin films leave peaks unprotected and prone to early pinpoint rusting.

Surface Pretreatment

Some metals react chemically with paint vehicles to produce compounds that may either improve or reduce coating adhesion. For example, it has been noted that a paint made from the copolymer resin of vinylidene chloride and acrylonitrile (Saran) will react with iron. This reaction may be necessary for promoting adhesion. However, if a coat of formula 117 wash primer (MIL-P-15328), a known adhesion promoter, is first applied over the metal, then the Saran coating peels off easily. Decomposition products that react with the metal surface, one of which has been identified as acetic acid, tend to decrease adhesion. Such undesirable by-products result from the presence of moisture and the oxidation process during the drying of certain paint vehicles. In order to reduce such paint-metal reactions, and also to provide for rust inhibition and protect against rust creeping under a coating film, metal pretreatments are used to convert the reactive metal surface to a chemically inert and adherent compound. These new stable surfaces usually are readily wetted by most organic coatings, with resulting better adhesion.

Phosphate Coatings. Pickled or acid-cleaned steel plates usually require a rust-inhibiting dip to remove excess acid and to provide a phosphate-chromate stable surface. A good inhibitive solution is as given above under Removal of Mill Scale and Rust.

Most of the proprietary phosphating solutions are complex but usually contain a phosphoric acid solution and a metal phosphate, such as zinc phosphate, manganese phosphate, or manganese dihydrogen phosphate. The phosphate layer or film formed on the metal surface consists of crystalline phosphate salts of the metal being treated or of the metal ions added to the phosphating solution. Besides the formulation given above, a common preparation for treating iron or steel[11] consists of primary zinc phosphate in phosphoric acid solution with heat and agitation. A tertiary insoluble zinc phosphate salt is formed, which makes up a good part of the phosphate protective layer; a small amount of secondary iron phosphate is also formed. Initially the solution is at nearly the saturation point of the tertiary zinc phosphate. When a piece of steel is immersed in the solution, the phosphoric acid reacts with the iron, liberating hydrogen gas. As the free acid is used up and the pH increases, the solubility of the tertiary zinc phosphate is exceeded, and deposition on the steel begins. Since the phosphating is slow because of cathodic polarization, accelerators or depolarizers such as nitrates, nitrites, and chlorates are used.

Shop Coat. After a steel plate is mechanically or chemically cleaned and treated, a shop coat, or construction primer, is applied to protect the clean metal surface during fabrication. A version of this coating is a weld-through primer which permits welding without removal of this coating.

One of the common primers used on mild-steel plates is an alkyd–zinc chromate coating (formula 84/47 conforming to specification TT-P-645). During and after construction, burned or weld areas are touched up with the same primer to protect the bare steel from premature corrosion. In many areas the construction primer is retained and topcoats are applied over it. In critical areas like shipbottoms, or in tanks, where definite coating compatibility is required, the construction primer is blasted off along with any phosphate-chromate pickling layer, so that epoxy or other chemical-type coatings can be applied. One recent requirement for a weld-through primer is that it permit welding through and need not be removed prior to application of subsequent coatings. Also, it should be compatible with subsequent topcoats, including epoxy, coal-tar epoxy, polyurethane, vinyls, silicones, and chlorinated alkyds. A suitable weld-through primer is a modified prepolymerized epoxy.

Wash Primer. The so-called "wash primer" has come into widespread use for many applications as a pretreatment for metal, plastic, concrete, wood, etc., to pro-

PAGE 2

mote coating adhesion. It is made from a phosphoric acid, isopropyl alcohol, polyvinyl butyral resin, and inhibitive chromate pigment.

The present formula 117 pretreatment coating covered under MIL-P-15328B is being used internationally for a variety of surfaces to promote adhesion, to make the surface passive, and to prevent premature corrosion; for example on shipbottom sandblasted steel; on stainless-steel sonar domes, replacing the usual nitric acid treatment for passivating the surface; on wood hulls to seal the pores and promote adhesion of shipbottom vinyl paints; on concrete to neutralize alkalinity and to seal and promote adhesion of top coats; on aluminum surfaces to promote adhesion where the standard process to treat aluminum for applying a chromium-conversion coating is not utilized; on galvanizing; and on magnesium surfaces to improve adhesion of coatings. Usually the phosphoric acid diluent that is added to the base material is reduced to one-half to one-third the standard total amount for magnesium.

Special Pretreatment for Aluminum. In addition to the wash-primer treatment, chromate chemical processes are widely used to produce stable surface compounds on aluminum and to improve coating adhesion. After the aluminum surface is cleaned mechanically, chemically, or with solvents, it is treated with a detergent cleaner to remove any greasy materials. Then any oxide formed is removed with a mild alkaline cleaner; this may leave a black smut, but it can be removed with a deoxidizer such as Deoxidizer No. 1.* The part is then treated with a suitable chromium-conversion coating. Subjecting the part to an acidulated hot-water rinse ensures the best type of conversion coating. The resulting color should be irridescent golden to gold.

Besides the chromium type of surface treatment, there are oxide types (anodizing) produced electrolytically which are effective in promoting coating adhesion and which serve as a resistant layer.

Special Pretreatment for Magnesium. The normal film that forms in air on magnesium is not an effective barrier against a moist atmosphere. Certain anodic treatments, such as Dow No. 17† followed by a wash primer (117, MIL-P-15328B), a zinc chromate–vinyl primer (120, MIL-P-15930B), and a topcoat of vinyl alkyd (122–27, MIL-P-15936B), give good protection.

Most of the treatments for magnesium are immersion or anodic treatments in baths which contain dichromates or mixtures and oxyacid salts such as sulfates, nitrates, or phosphates. Several treatments are given in MIL-M-3171B.

Anticorrosive Coatings

Anticorrosive, or barrier, coats are the real workhorses of a coating system. They usually form the bulk of the film thickness that is necessary to serve as the wall between the prepared or treated surface, with or without primers, and the topcoats which are in direct contact with the destructive marine environment. Although such coatings may include rust-inhibitive pigments when used for metals, and may even contain such pigments throughout the entire coating system, as in lead silicochromate, the burden of the protection rests upon this barrier. It has been observed that an improvement in the anticorrosive coating in a shipbottom paint system can definitely improve the antifouling performance.

The coating must keep the moisture from penetrating through to the marine surface. If moisture gets through, then corrosion starts: if oxygen is present and passes through the film, this corrosion action is accelerated. Water-soluble inhibitor chromate pigments in the primer do help to reduce or retard the corrosion action by supplying a pool of chromate ions. This pool can be located under a blister where corrosion is arrested, even in the presence of chloride ions.

The penetration of moisture can be stopped successfully, for example, by 0.006 to 0.01 in. of nonporous, dense organic coating films. An epoxy or vinyl-resin base coating 0.008 to 0.01 in. thick can prevent corrosion of a coated piece of immersed steel for several years. Other less permeable coatings, such as dense Saran (copolymer of vinylidene chloride and acrylonitrile), can prevent water penetration even if they are only 0.002 in. thick.

* Amchem Products, Inc., Niles, Calif.
† Dow Chemical Company, Midland, Mich.

C. Question

Realizing that a phosphoric acid curing agent was used, and that the members were barged from Vancouver to Portland, how soluble would the zinc be when exposed to atmosphere containing 30-50 parts per billion SO_2?

Answer

In order to demonstrate certain calculations, it is necessary to establish standard units for the amounts of SO_2 we are concerned with.

The 30-50 parts per billion is preferably converted to units of micrograms (1-millionth of a gram) per cubic meter ($\mu g/m^3$).

The following are the calculations:

a. 30-50 parts per billion = .03 - .05 parts per million (PPM).

Reviewing the sulfur dioxide charts on pages 2 and 3 of attachment #12, we can establish the relationship between $\mu g/m^3$ (chart on page 3) and PPM (chart on page 2). This relationship directly from the charts is: 0.20 PPM is equal to 500 $\mu g/m^3$. To convert PPM to to $\mu g/m^3$ you multiply the PPM by a factor of 2500 ($\frac{500}{.2}$ = 2500).

b. Check: .02 PPM x 2500 = 500 $\mu g/m^3$

The above 30-50 parts per billion or .03 - .05 parts per million is equal to 2500 x (.03- .05) or 75-125 $\mu g/m^3$.

To answer the question as to how soluble the zinc would be exposed to an atmosphere containing 75-125 $\mu g/m^3$ (30-50 parts per billion) of SO_2 we establish the following:

1. One gallon of Rust-ban 191 solids weighs about 50 pounds.

2. This amount (a solid gallon) covers approximately 1600 square feet of surface, 1 Mil (dry film) thick.

3. The weight of Rust-ban 191, one mil thick, per sq. ft. would be 0.0313 pounds (50/1600) or this calculates to 0.1 gram per sq. inch.

4. This amount of Rust-ban 191 contains 0.085 grams of zinc (85% by wt.).

5. The following chemical reactions show the formation of sulfuric acid on a mol or molecular basis:

a. SO_2 + H_2O = H_2SO_3 (sulfurous acid)
1 Mol 1 Mol 1 Mol
64 grams 18 grams 82 grams

*b. H_2SO_3 + $1/2\ O_2$ = H_2SO_4 (sulfuric acid)
1 Mol 1/2 Mol 1 Mol
82 grams 16 grams 98 grams

c. H_2SO_4 + $Z\mu$ = $Z\mu SO_4$ = $H_2\uparrow$ (Hydrogen Gas)
1 Mol 1 Mol 1 Mol 1 Mol
98 grams 65 grams 161 grams 2 grams

* Also written as: $3H_2SO_3 = 2H_2SO_4 + S + H_2O$

It is pointed out that about equal weights of sulfur dioxide (SO_2 : Mol WT = 64) and zinc metal (Mol WT - 65). In this instance, 1 Mol of sulfur dioxide (64 grams) ends up by reacting with 1 Mol of zinc (65 grams) through the sulfuric acid that is formed. Another way to look at this is that 32 pounds of sulfur "burned" in a process will produce 64 pounds of SO_2 which will react (deteriorate) with 65 pounds of zinc metal in the Rust-ban coating.

To react with the 0.085 grams (85,000 micrograms) of zinc, (1 Mil, 1 square inch of Rust-ban 191 film) it would require the following amount of SO_2:

d. For $75\mu g/m^3$ (SO_2)

85/75 x 1000 = 1300 cubic meters of SO_2

e. For 125 $\mu g/m^3$ (SO_2)

85/125 x 1000 = 600 cubic meters of SO_2

From the above calculations, it requires 1300 cubic meters of 75 $\mu g/m^3$ SO_2 and 600 cubic meters of 125 $\mu g/m^3$ SO_2 to completely react with the zinc in 1 sq. inch of Rust-ban 191, 1 mil thick (dry film).

As indicated in the chemical reaction of "c" above, the zinc is converted to very water soluble zinc sulfate salt.

With a continuous supply of SO_2 at the amounts present in the Portland, Oregon atmosphere (and specifically at the Fremont Bridge site) it is simply a matter of time (if not further protected with topcoats) before the inorganic zinc coating slowly "washes away". These amounts of film loss can greatly exceed the general criterion of 1/2 - 1 mil loss or reduction of film thickness of inorganic zinc per year under direct and continuous water exposure (sea and fresh water). See attachment #13, page 2, item 6.

Attachment #13 page 1, also points out the suitability criteria for Rust-ban 191 as follows:

"Strongly acidic or alkaline products will attack Rust-ban inorganic zinc coatings. Acceptable limitations for normal service conditions are:

6.5 to 10.0 pH

Less than 0.4 neutralization number

Less than 300 ppm hydrogen sulfide content. (Hydrogen sulfide, like SO_2, will also react with zinc.)

Summary

It is apparent, from the above information, that a content of SO_2 in the atmosphere can quickly dissolve zinc in the inorganic zinc coating. The sulfurous acid, oxidized to sulfuric, reacts to form zinc sulfate. With condensations of moisture and rains, the very soluble zinc sulfate salts wash away, exposing new layers of inorganic zinc coating for SO_2 attack. Since the coating (inorganic zinc) is 85% by weight zinc, the film is also destroyed as the SO_2 "eats" away at the zinc. Also the SO_2 can react with lithium silicate or any of the lithium compounds, again forming soluble sulfates.

ATTACHMENT #12

DATA SHEET

RAINFALL & AIR POLLUTION - PORTLAND, OREGON

RAINFALL	WATER EQUIVALENT	SULPHUR DIOXIDE (mcgms/cu meter)
October 1970	2.85	13.1
November 1970	5.72	52.4
December 1970	7.49	70.7
January 1971	7.09	78.6
February 1971	3.36	60.0
March 1971	4.97 (1.37")	48.6
April 1971	2.72	41.0
May 1971	1.00	19.0
June 197	1.76	21.6

Rainfall averages

November, December, January	6.77"
ber to March 15	4.84"
h 16 to June 30	1.96"

- - land Airport

Sulphur oxide - Broadway & Burnside

Source formation - Sulphur Dioxide

Air Quality Control Division
Department of Environmental Control
Oregon State
1400 S.W. 5th Avenue
Portland, Oregon 97201

Contact Mr. Glen O'Dell

, - 56.50

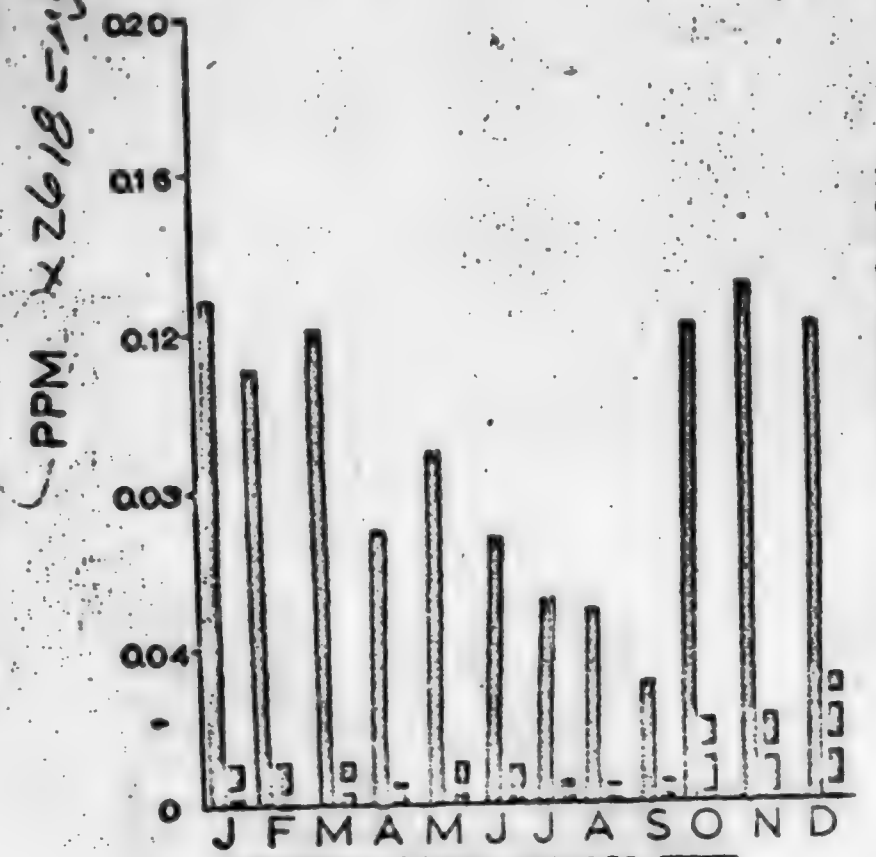
Rainfall

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Environmental Data Service

CONTINUOUS AIR MONITORING STATION
718 W. BURNSIDE
1970

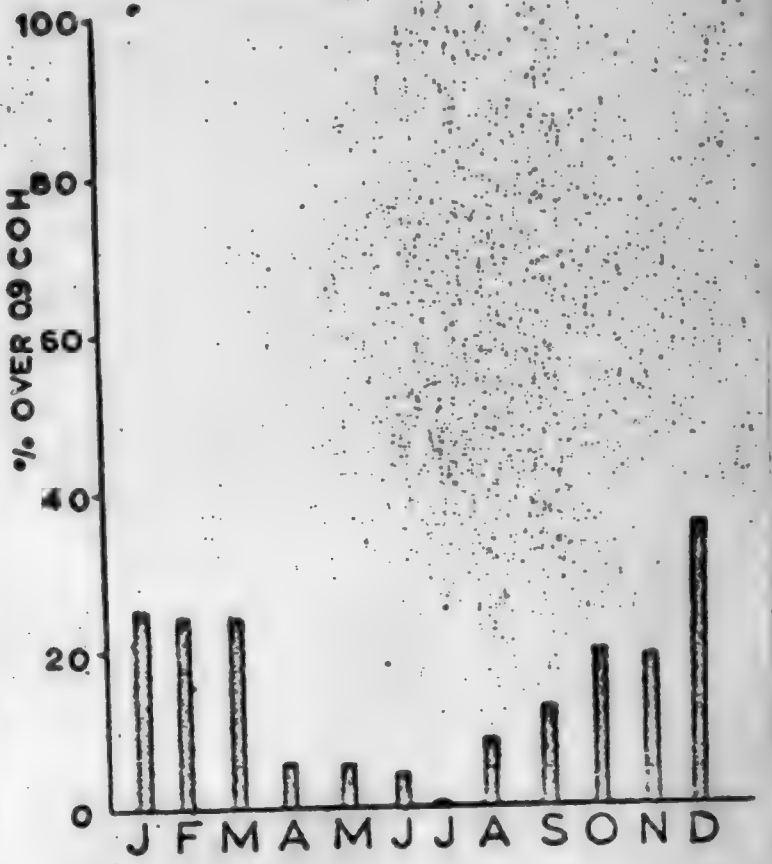
PPM x 2618 = µg/m³

Sulfur Dioxide

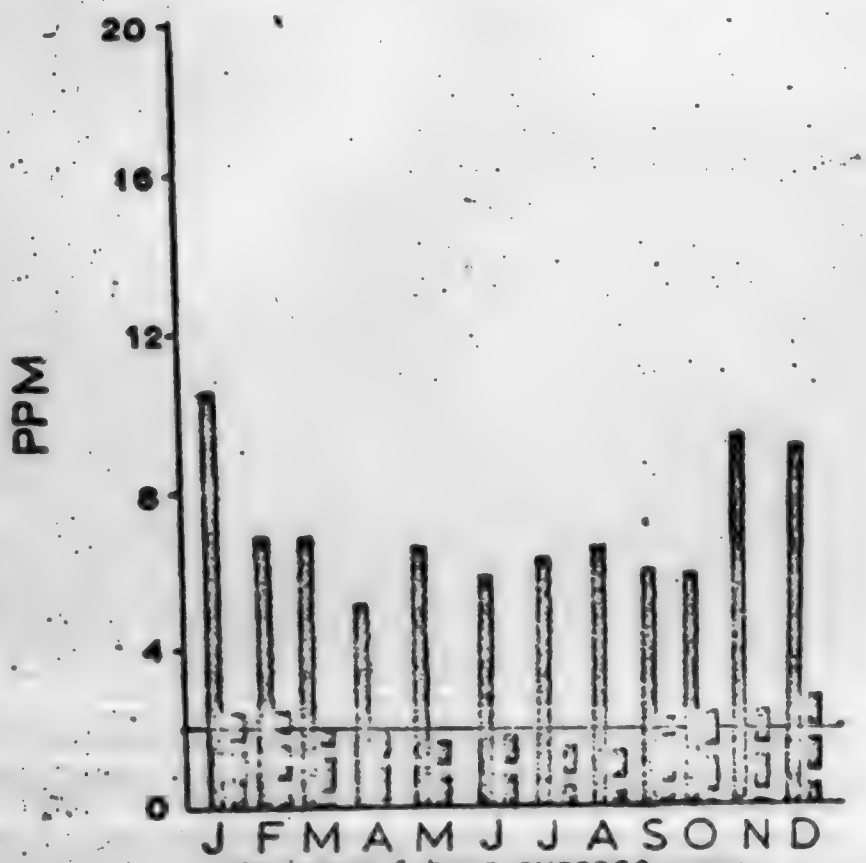


Maximum 1 hour average
Monthly average

Soiling Index



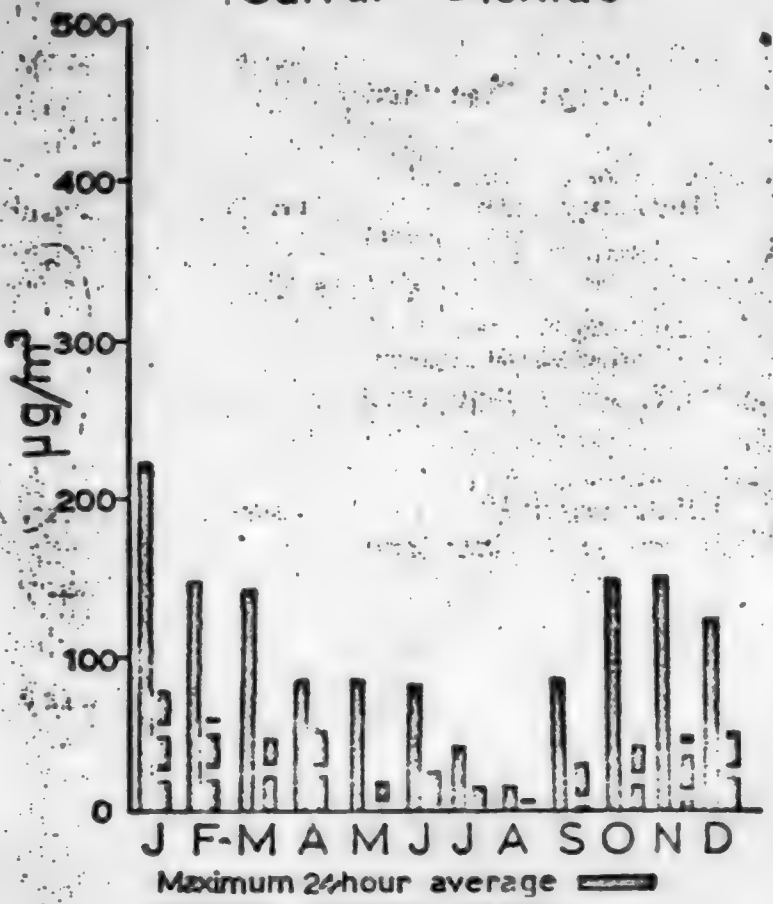
Total Hydrocarbons



Maximum 1 hour average
Monthly average

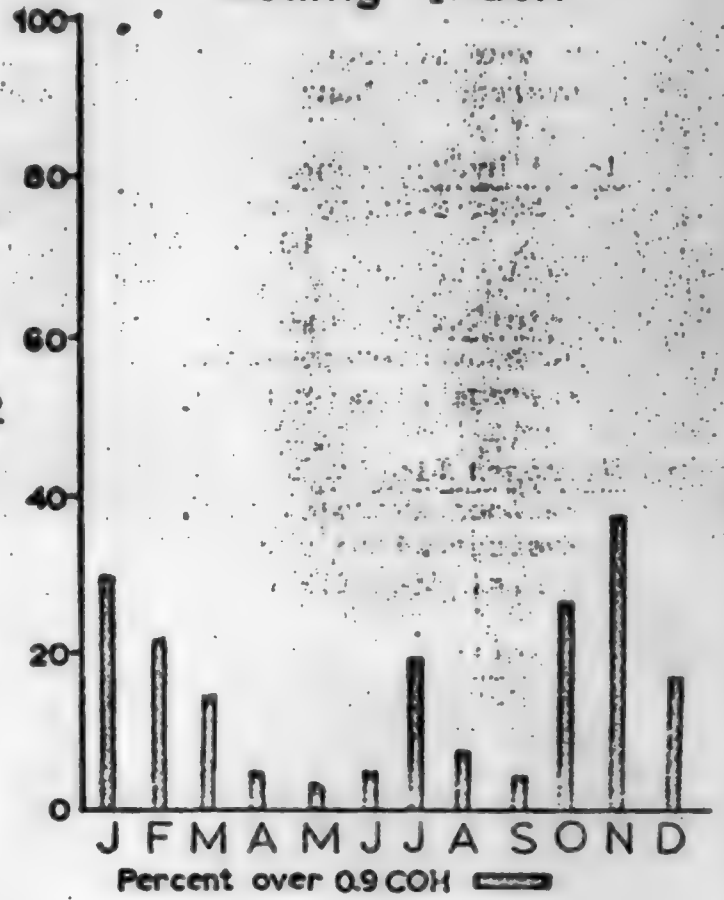
CONTINUOUS AIR MONITORING STATION
718 W. BURNSIDE, PORTLAND
1971

Sulfur Dioxide



Maximum 24-hour average
Monthly average
1970 Annual average: 34.1

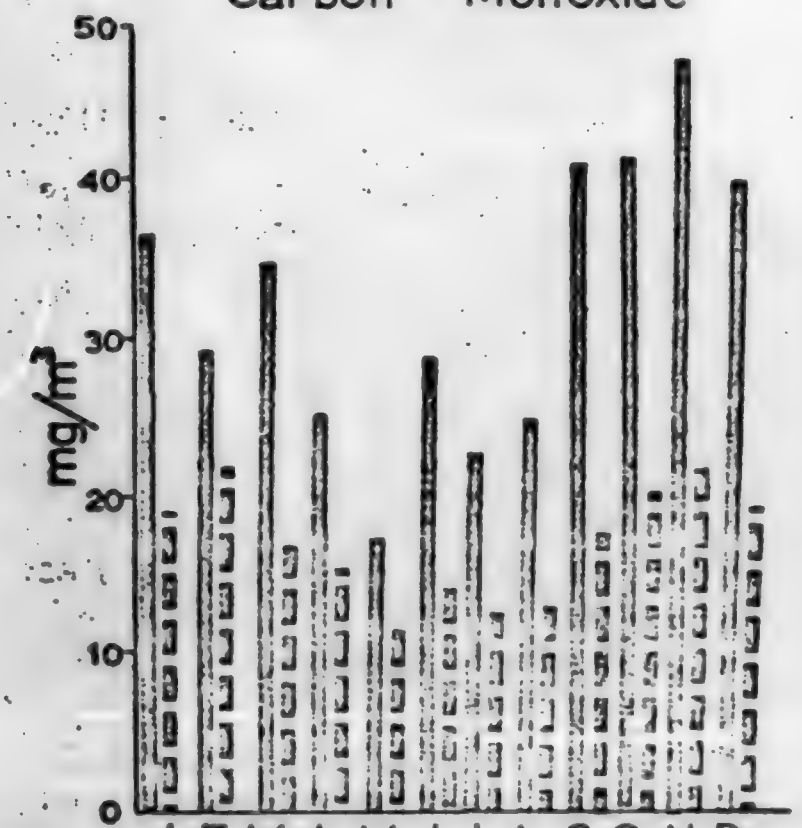
Soiling Index



Percent over 0.9 COH

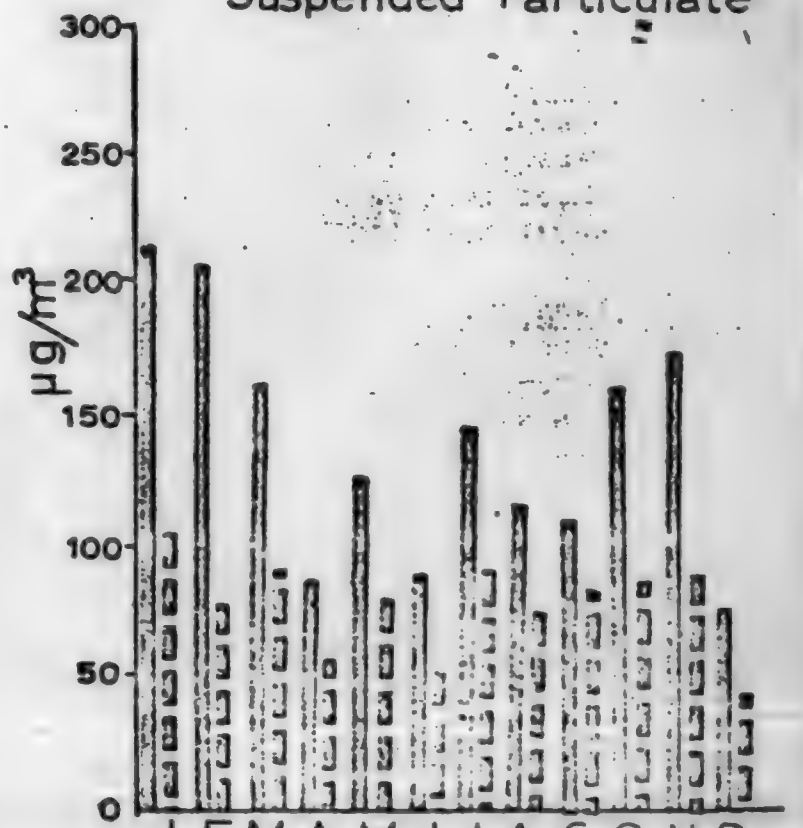
(Values Based On Standard Conditions)

Carbon Monoxide



Maximum 1-hour average
Maximum 8-hour average

Suspended Particulate



Maximum 24-hour average
Monthly average
1970 Annual Geo. Mean: 65.1

SPECIALTIES ENJAY

TECHNICAL INFORMATION BULLETIN

SUITABILITY TABLE FOR RUST-BAN INORGANIC ZINC COATINGS

RUST-BAN 190/195 - 191/195

GENERAL NOTES

The information presented in this "SUITABILITY TABLE" is for guidance of customers in determining the compatibility of RUST-BAN inorganic zinc coatings with petroleum, chemical and other liquid cargoes commonly encountered in the transportation field. The suitability ratings indicated are based on appropriate laboratory tests, actual field experience and other studies. Every effort has been made to assure the accuracy of the information presented. However, because of variations in manufacturers' specifications, widespread use of additives, etc. Enjay Chemical Company cannot assume any responsibility for the condition of the coating and/or the products carried or stored in RUST-BAN inorganic zinc coated tanks.

Strongly acidic or alkaline products will attack RUST-BAN inorganic zinc coatings. Acceptable limitations for normal service conditions are:

6.5 to 10.0 pH
Less than 0.4 Neutralization Number
Less than 300 ppm Hydrogen Sulfide Content

Infrequent and limited exposure to cargoes having acid/alkali values moderately beyond the acceptable ranges indicated above can usually be tolerated without significant damage to the coating. Contact your Enjay Representative for specific recommendations about performance of RUST-BAN inorganic zinc coatings in enviroments involving acidity/alkalinity conditions outside the acceptable limits.

The use of acidic or alkaline cleaning agents for washing RUST-BAN inorganic zinc coated tanks should be avoided.

OILS - WITH HIGH FREE FATTY ACID CONTENT

Free fatty acid content is the prime consideration in determining the suitability of vegetable oils and their derivatives. Generally, the raw oils covered in this table have low free fatty acid content - and accordingly are rated suitable for carriage in RUST-BAN inorganic zinc coated tanks. In cases where oils are known to have relatively high free fatty acid contents, (more than 2-1/2%) contact your Enjay Representative for specific recommendations. Appropriate laboratory testing may be necessary.

ICD-70-577

ENJAY CHEMICAL COMPANY
PARAMINS AND SPECIALTIES DIVISION
8230 STEDMAN STREET • HOUSTON, TEXAS 77029

(1) Products are suitable when kept dry. However, when chlorinated or brominated products contact moisture, they tend to split into free acids which gradually attack inorganic zincs after two weeks or more continuous contact.

(2) The suitability of denatured ethanol depends upon the denaturant used. Ammonium hydroxide denatured ethanol is definitely unsuitable.

(3) The suitability of animal, vegetable oils and fats is a function of free fatty acid content, temperature of the cargo, and exposure time. As a general rule, cargoes with FFA contents in excess of 5 "acid value" will cause gradual deterioration of inorganic zinc coatings at temperatures in excess of 100°F/38°C. It has, however, been noted that post-cured (with RUST-BAN 195) RUST-BAN 191 has significantly better resistance to these materials than does uncured coating. RUST-BAN inorganic zinc coatings do not contain lead which is susceptible to rapid and massive attack in the presence of most animal and vegetable oils.

(4) In general, sour crudes (hydrogen sulfide contents in excess of 300 ppm) with high (greater than 0.4) neutralization numbers gradually attack inorganic zinc coatings — especially if significant amounts of moisture are present. This is evidenced by selective rusting of tank bottoms, deckheads, and horizontal members. These selected areas can be protected by top-coating the inorganic zinc with Enjay Coal-Tar Epoxy EX 6692. Crudes with neut. numbers below 0.4 and hydrogen sulfide contents below 300 ppm are perfectly acceptable for inorganic zinc alone.

(5) Amine products of this type are generally acceptable for inorganic zincs unless moisture is present. With moisture, caustic solutions are formed, and coating failures can result.

(6) RUST-BAN 191 has excellent resistance to cyclic sea and fresh water exposure (including distilled water), but coating life is reduced (at the rate of approximately 1 mil per year) under direct and continuous water exposure. Under continuous immersion conditions, inorganic zincs are best topcoated with vinyls, epoxies, phenolics, or chlorinated rubber coatings.

(7) Coatings performance is acceptable; but product contamination has been noted and verified.

(8) For transformer oils, scrub away all loose zinc and wash out to eliminate alkalinity. Avoid water contamination of these oils.

The information contained herein is to the best of our knowledge accurate; but since the circumstances and conditions in which it may be used are beyond our control we do not accept liability for any loss or damage that may occur nor do we offer any warrantly of immunity against patent infringement.

D. Question

Your comments on an acceptable system. Is the following system sufficient?

Primer - Inorganic zinc - ethyl silicate (3 mils)
Stripe coat - Organic zinc (epoxy)

Vinyl wash primer (#117)
Vinyl Hi-build 80ku (3 mils) first coat
Vinyl Hi-build 80ku (3 mils) second coat

Answer

The above coating system appears to be somewhat complicated in respect to the so-called "stripe-coat" followed by the wash primer, #117.

A complete system which is quite classical is the following:

1 - Primer - inorganic zinc, ethyl silicate
2 - Vinyl wash primer, #117
3 - Vinyl hi-build first coat
4 - Vinyl hi-build second coat

Returning to the "stripe coat", organic zinc epoxy, there seems to be a redundancy. It is known to the art that zinc rich primers may be of the inorganic binder type or organic binder type and mixtures (some organic binder in the inorganic) these latter hybrids can contain polyvinylbutyral, for example, in with the ethyl silicate binder, using alcohol as the common solvent.

It doesn't appear necessary to apply an organic zinc epoxy over an inorganic zinc (ethyl silicate). Obviously, "anything can be done," but the logic of the coating system proposed is not self-evident. It would be more conventional to use instead a "normal" epoxy coating over the zinc-ethyl silicate.

Summary

The following coating systems are derived from the 5-coat system reviewed and proposed above; these systems are recommended instead:

	Dry Film
(A) Inorganic zinc-ethyl silicate	3 mils
Vinyl wash primer #117	0.5 - 0.75 mils
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils
(B) Inorganic zinc-ethyl silicate	3 mils
Epoxy primer - thinned, Mil-P-23236 or Navy 9190. Limited cure time so as to receive vinyl hi-build	1 mil (Max)
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils

	Dry Film
(C) Inorganic zinc - ethyl silicate	3 mils
Epoxy primer, thinned, Mil-P-23236, or Navy 9190.	1 mil (Max)
Epoxy intermediate, Mil - P - 23236 or Navy 9190	2 - 3 mils
Epoxy finish, Mil - P - 23236 or Navy 9190	2 - 3 mils
(D) Organic-zinc epoxy	3 mils
Epoxy intermediate, Mil-P-23236 or Navy 9190	2 - 3 mils
Epoxy topcoat	2 - 3 mils
	Min 8 mils

Also refer to attachment #7, "Topcoating Inorganic Zincs."

E. Question

Is Portland, Oregon's winter atmosphere deleterious to a water based inorganic zinc primer without a seal coat?

Answer

As previously reviewed under Question A-6 and A-9, for Rust-ban 191 (and 193) to cure the lithium silicate binder must be insolublized. In the atmosphere, with some humidity, the following reaction takes place:

a. $Li_2 SiO_3$ + $2H_2O$ = $2LiOH$ + H_2SiO_3

$Li_2 SiO_3$	$2H_2O$	$2LiOH$	H_2SiO_3
Lithium Silicate	Water	Lithium Hydroxide	Silicic acid

Then for curing to take place, the silicic acid has to dehydrate as indicated below:

b. $H_2SiO_3 \xrightarrow{\text{Dehydration}} H_2O + SiO_2$

SiO_2: Silicon Dioxide or Silicic Acid Anhydride

This over-simplification is not intended to detail the other complicated reactions that take place to form the complex iron-zinc silicate.

If the second reaction (b) or others which form the insoluble complex silicates, is not possible, then water soluble ingredients such as lithium silicate, lithium hydroxide, etc. can easily be washed away by rain or other condensation.

Besides the moisture which can be deleterious to such inorganic water base zinc coatings, there is the aggressive sulfur dioxide content of the winter atmosphere. The following SO_2 content was recorded in Portland, Oregon during Jan.-Mar, 1971:

	SO_2
January 1971	78.6 $\mu g/m^3$
February 1971	60 $\mu g/m^3$
March 1971	48.6 $\mu g/m^3$

As discussed in Question "C" above, these amounts of SO_2 along with moisture can be very deleterious to the inorganic zinc coating.

Summary

With the winter environment at Portland, Oregon identified as to high moisture, rain and SO_2 content, any inorganic water based zinc primer without a seal (sealer) or top coat will show definite increase in rate of diminishing of the coating film thickness, with rust finally breaking out in the damaged or deteriorated areas.

Also, it has to be postulated that the reason a certain member or area looks good, is because it was "lucky" since the aggressive environment didn't get to it yet.

F. Question

Should there have been a residue on the steel girders from a washing of the soluble salts caused by the Portland winter atmosphere?

Answer

The most soluble salts that could form on the steel girders would be the sulfates: zinc, lithium, and iron. This is assuming, of course, the presence of moisture and SO_2 in the atmosphere.

Dependent upon sequence, the zinc sulfate may or may not be present in amounts to collect for identification. The zinc sulfate (or lithium and iron) could be formed and washed away by rain. Or, the sulfate salt could be formed and localized mostly in the pores of the inorganic zinc silicate coating. Other less soluble salts and zinc compounds could trap some of the sulfates. Also, residual lithium silicate, phosphate, hydroxide and carbonate could also be converted to the sulfate.

G. Question

If your answer to "F." is yes, what evidence should there have been on the girders to indicate a residue.

Answer

The soluble sulfates normally would not form dense or ample white deposits like those formed when curing agents are applied over the Rust-ban inorganic zinc primer. Any surface sulfate would probably be washed away by rain or/other condensations. Probably, fresh water washes and recovery of several of such washes would permit chemical identity of the presence of sulfate.

H. Question

Would use of small test panels be indicative of reaction of paint on large panels?

Answer

In my studies relating to surface profiles of abrasive blasted surfaces and corrosion, the following observations have been made:

A small test panel 4" x 6" x 1/8", was divided into four equal areas and sandblasted with different sieve size abrasives such that four profiles were obtained. Also these studies included the occlusion of shattered sand within the valleys and the effect of this on corrosion.

The prepared panel was layed flat on a laboratory work bench and subjected just to the laboratory environment. In about two days, corrosion was observed on the panel. The sequence of corrosion and amount was directly proportional to the roughness of the surface, thus exposing more surface per unit area, and the amount of occluded sand particles in the depressions.

It is thus demonstrated, that even on the same panel, the environment can act differently on the various areas. It follows, two panels of identical size with some surface differences will perform differently when subjected to an exposure or environment.

A classical example of my experience is the varying performances of two identical 10" x 12" x 1/8" mild steel panels, spray painted identically, with the same continuing spray passes, and immersed in sea water side by side performed differently.

Now going to two size panels, the variations can be further amplified. A test panel (small) versus a steel girder obviously would present a case of two distinctly different surfaces.

In the first instance, the mass of the two surfaces is vastly different. This means the heat capacity of the two would vary greatly. The panel would heat up and cool off rapidly. The steel girder would heat and cool slowly. A pool of water, for example, would evaporate at different rates from the panel and girder. This would result from the varying heat contents and the varying air currents around the two surfaces.

Because of varying heat contents, varying rates of heating and cooling, and varying masses, rates of expansion and contraction would be different of the two surfaces. Coatings on these surfaces would experience different stresses under the various environmental actions.

Summary

Small test panels can at best be compared to each other and more exactly to each other if they are the same size. Such panel tests are good for screening purposes. The performances of massive girders and small panels normally would not be compared directly.

I. Question

What effect would result from increasing the zinc content to 85%.

Answer

The specification, for the Fremont Bridge, covering the properties of the mixed inorganic zinc silicate primer "already" requires a minimum zinc pigment content of not less than eighty-five (85%) percent, by weight of the total non-volatile content.

Under Question A, previously answered, the question on insufficient pot agitation may be responsive to this question. The resulting applied inorganic zinc coating would be quite variable. The zinc content, because of poor agitation and settling of the zinc pigment, would vary. The first sprayed material would be "richer" - more than 85% - in zinc and the subsequent applied coating would contain less zinc. The properties would vary accordingly. The coating with excessive zinc would be dry, porous and irregular - the low zinc would show up as a glossy, flooded, poorly adhering or even layering type of deficiency.

J. Question

1. Was a tie-coat necessary after the application of the zinc primer?

2. Was a seal-coat necessary after the application of the zinc primer?

3. Was a wash primer necessary after the application of the zinc primer?

Answer

First of all let us define the above terms: "tie coat", "seal-coat" and "wash coat".

A. Tie-coat

A "tie-coat" is a coating material that permits two coatings that are not compatable with each other - i.e., don't "stick" to each other - to become compatable in the complete coating system. In the present situation, a "tie-coat" is a coating or coating material that will permit the first coat of the hi-build vinyl to "stick" to the inorganic zinc primer. The "tie-coat" is the "sandwich spread" that holds the two pieces of bread together. As previously discussed, such a "tie-coat" could be the #117 wash primer or as it is technically designated as "pretreatment coating." Another "tie-coat" could be a thinned version of the hi-build vinyl or thinned Navy #119 (if applied to a rough and porous inorganic zinc coating). Other"tie-coats" could include epoxy, silicone, phenolic, and chlorinated rubber coatings.

2. Seal Coat

"Seal coat" may be defined as a "sealer" or "sealer coat". *

The use and function of a sealer coat may be best illustrated by the "knot sealer" for wood surfaces. In this case, the sealer consists of an alcohol solution of a phenolic resin and a polyvinylbutyrol resin. The coating is applied directly over the knot in the wood. The result is that the rosin in the knot is sealed and it will not migrate into subsequent top coats.

Another common use of a "sealer coat" is for application over asphalt paving. The "sealer" locks the asphalt under so that it cannot migrate to the surface, for example, and stain white traffic paint that has been applied. (The traffic may be of the "sealer coat" type.

In the usage with inorganic zinc primer, a "seal coat" or "sealer" locks the zinc in so that aggressive environmental factors cannot conveniently get to the zinc.

In an additional use of the "sealer", it penetrates into the normal pores of the inorganic zinc primer, seals the pores — fills them up — and provides a barrier between the inorganic zinc primer and the atmosphere.

* From Organic Coating Technology. Vol II, Payne.

K. Question

Does rust "stain" which has been deposited from an unpainted area such as the top flange have a detrimental effect on the zinc primer and/or the finish coat?

Answer

The rust stain should have no effect on the vinyl finish coat except to discolor it. The effect of the rust on the inorganic zinc primer is something else. After the rust was washed down by rain or other condensation, it entered into an oxidation-reduction chemical reaction with the zinc.

The half-cell reactions from the electromotive series of metals includes the following pertinent ones:

		Potential (Volts)
1.	$ZN \longrightarrow ZN^{++} + 2E$	+ 0.763
2.	$FE \longrightarrow FE^{++} + 2E$	+ 0.441
3.	$FE^{++} \longrightarrow FE^{+++} + E$	— 0.770

Two reactions are possible involving the above three half-cell reactions:

(A) 1.	$ZN \longrightarrow ZN^{++} + 2E$		+ 0.763 volts
3.	$FE^{++} \longrightarrow FE^{+++} + E$		— 0.770 volts

Net reaction (subtract 3. from 1.)

$$ZN + 2\ FE^{+++} = ZN^{++} + 2\ FE^{++} + 1.533 \text{ volts}$$

Here, the iron rust, FE^{+++} (ferric ion) reacts with the zinc of the Rust-ban inorganic zinc primer to produce (deteriorate) zinc ion, ZN^{++}, and ferrous ion, FE^{++}. The electromotive force (volts to drive the reaction is + 1.53_4 volts.

The next reaction that occurs is:

(B) 1.	$ZN \longrightarrow ZN^{++} + 2E$		+ 0.763 volts
2.	$FE \longrightarrow FE^{++} + 2E$		+ 0.441 volts

The net reaction is:

$$ZN + FE^{++} = ZN^{++} + FE \qquad + 0.322 \text{ volts}$$

These reactions are the typical or classical cathodic protection reactions in which zinc metal is sacrificed to protect the steel. These sacrificial actions are to change ferric iron (FE^{+++}) to ferrous (FE^{++}) and then to change ferrous iron (FE^{++}) to iron metal (FE).

3. Wash Primer

The term "wash primer" was derived from the practice of washing a steel structure, after erection, with dilute aqueous solutions containing phosphoric acid, alcohol or other water miscible organic solvents and an inhibitor (rust inhibitor). Such washes serve to convert the rust to a relatively harmless and well-anchored phosphate.

The present wash primer (MIL-P-15328, Formula #117) embodies the phosphoric acid, alcohol and inhibitive pigment, zinc chromate. The binder or vehicle is an alcohol solution of polyvinylbutyrol resin. Applied to a steel surface, it prepares the surface by a complicated series of chemical reactions that promote adhesion for successive top coatings. For example, wash primer (known technically as pretreatment coating) applied to a sandblasted surface will "accept" the red lead vinyl, Formula #119 (MIL-P-15929). Without the #117, the red lead vinyl would have no adhesion to the steel. This, however, does not exclude the fact that there are certain vinyls that can "stick" directly to the steel.

Also, it has been the practice to use #117 wash primer over inorganic zinc coatings. As related before, because when the two components of #117 are mixed, there still remains some free phosphoric acid. So, when #117 is applied over say Rust-ban #191 (without having curing agent #195 applied), the #117 can serve as a curing solution as well as "sealer coat" and "tie coat".

The term wash primer may refer specifically to a pretreatment coating for application over steel, aluminum and galvanized steel (zinc), but its uses have spread to include it being used as a tie-coat, seal coat, cure solution and a metal conditioner.

In the trade, "tie-coat" and "seal coat" may or may not be synonymous. It depends on how the material is used and what it is. The wash primer #117 embraces both the "tie-coat" and "seal-coat" besides being in itself a metal conditioner.

Wash coat, #117, cannot be used as a top coat or barrier coat. Within about 24 hours, it must be topcoated with a typical barrier topcoat such as epoxy, vinyl, silicone, chlorinated rubber, etc.

Summary

After the application of the inorganic zinc primer, a "seal coat" and/or "tie-coat" was necessary. The "wash coat" (117) would have served both catagories and in that sense, if selected, it was necessary. However, due to its particular composition, it too requires added protection from the atmosphere. The first coat hi-build vinyl, applied within 24 hours of the application of #117, over the wash primer would serve as the barrier required.

Period	Sulfur Dioxide $\mu g/m^3$	Water Equivalent
Jan 1971	78.6	7.09
Feb 1971	60.0	3.36
Mar 1971	48.6	4.87

The girders were subjected immediately to high SO_2 and water impact. With no time to build-up some of the normal protective salts, such as normal carbonates, to seal some of the pores, accelerated atmospheric SO_2 and water attack too place. Such attack could greatly dimish film thickness, as observed.

The zinc ions (ZN^{++}) then form the various zinc salts and products: sulfates, phosphates, carbonates, etc. With rain and other condensations, the salts can dissolve (if soluble in water) and wash away or be washed by mechanical wearing action of the rain. In this way, new zinc is exposed for a repeat of the above sacrificial reactions. The free iron formed from the net reaction of (B) can rust by the atmosphere and start anew the whole deterioration process of zinc (and the lithium silicate end products).

L. Question

The longitudinal girders on unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Answer

According to available information during the application of Rust-ban 193 and 195 cure solution, the temperature in the Canron plant was stated as being held between 70-80°F with a relative humidity of 30-50%. The film thicknesses were checked by wet film measurements, (I assume dry film measurements at those measured areas was also checked) and were determined to be at least 3 mils. This then appears to eliminate a point of consideration which is contained in Attachment #14.

On page 2, 3rd paragraph, the following is stated: (Following this from above paragraph: "it (#193) can easily be applied by spray at temperatures ranging from 40°F to 140°F.)

"At the upper temperature levels, Rust-ban 193 can be applied to a dry film thickness of 3-5 mils in one coat. At lower temperature levels, it may become necessary to apply two coats of Rust-ban 193 in order to obtain 4 dry mils..."

Apparently, from time above, at low temperatures only a maximum of 2 dry mils of 193 can be obtained per coat. This was not the situation at the Canron plant where it has been stated the temperature was held at 70-80°F.

The coating thicknesses taken 90 days after the application of Rust-ban 193 (+195 cure solution) showed 1 mil average on the interior surfaces of the box beams and 2 mils for exterior surfaces. This cannot be explained on the basis of deficiency in the application process since all factors were controlled, inspected and certified. There remains only the uncontrolable environmental factors at the Fremont Bridge site.

The 4' diameter areas of pinhole rusting would be the normal rusting pattern. Penetration and deterioration would follow a droplet distribution coinciding with moisture droplet distribution on a surface (horizontal). Vertical surfaces would display flow pattern with gravity plus droplet corrosion pattern. All rusting that appears would coincide with water droplet distribution and porosity in the Rust-ban inorganic zinc coating.

The girders were shipped Jan-Feb. 1971 and film thicknesses taken in March 1971. A review of the environmental factors during this period show the following:

SPECIALTIES ENJAY

ATTACHMENT #14 PAGE 1

TECHNICAL INFORMATION BULLETIN

RUST-BAN 193

INORGANIC ZINC COATING

RUST-BAN 193 is an inorganic, self-curing, zinc silicate coating. Its unique formulation results in outstanding adhesion -- even to smooth, clean or "pickled" steel while still maintaining the advantages associated with water-based inorganic zinc-rich coatings. RUST-BAN 193 is non-flammable and offers:

- Excellent adhesion
- Exceptional abrasion resistance
- Outstanding corrosion resistance
- Self-curing mechanism
- Application at 40-140°F temperature
- Spray or brush application
- Five-day pot life
- Variety of topcoats
- Fire resistance
- Solvent resistance
- Cleanup of equipment with water
- Cathodic protection

RUST-BAN 193 has been tested extensively during the past four years under a wide variety of environmental conditions. These exposures include ships' decks, ship side shells, barges, refinery and chemical plant storage tanks, as well as numerous structural steel members. RUST-BAN 193 can be used over sandblasted, "pickled", or mechanically-cleaned steel. It is particularly useful as a touch-up primer since it adheres well to coatings adjacent to the repair area.

Typical applications of RUST-BAN 193 are as follows:

Industrial

Steel Storage Tanks
Structural steel
Heavy equipment
Railroad cars

Marine

Preconstruction priming
Decks
Hulls
Terminals

SURFACE PREPARATION

RUST-BAN 193 performs well over commercially-blasted, chemically-cleaned, shot-blasted, or power tool cleaned metal surfaces.

ICD-69-567

ENJAY CHEMICAL COMPANY
PARAMINS AND SPECIALTIES DIVISION
8230 STEDMAN STREET • HOUSTON, TEXAS 77029

However, as is true with all high-performance coatings, optimum performance will be obtained with optimum surface preparation; i.e., white or near-white metal abrasive blasting.

APPLICATION

Unlike many other inorganic zinc coatings, RUST-BAN 193 is not susceptible to mudcracking, dusting, or flashing ... even when applied upon hot metal surfaces. It can easily be applied by spray at temperatures ranging from 40°F to 140°F.

At the upper temperature levels, RUST-BAN 193 can be applied to a dry film thickness of 3 - 5 mils in one coat. At lower temperature levels, it may become necessary to apply two coats of RUST-BAN 193 in order to obtain 4 dry mils. Except as noted above, application and curing properties of RUST-BAN 193 are similar to those of other water-based inorganic zinc silicate coatings, such as RUST-BAN 191.

Suitable spray equipment is as follows:

Paint Gun	Fluid Tip Orifice Size	Fluid Tip	Fluid Needle	Air Cap	Suggested Line Pressure
DeVilbiss PMBC 510	0.070	AV-601-E	MBC-444-E	MB 4039 #64	30 PSI
Binks #18 or #19	0.070	66	65	63 PE or 63 PB	30 PSI

MIXING

In mixing, the zinc dust should always be stirred into the liquid component. Agitation must be slow to avoid foaming. When thoroughly mixed, RUST-BAN 193 should be strained prior to use. During application, continuous - though slow - agitation of the coating in the pressure pot is required. Although RUST-BAN 193 has a pot life of five days, it should be restrained if the mixed coating is stored longer than eight hours.

TOPCOATS

Suitable topcoats for RUST-BAN 193 include epoxy ester, catalyzed epoxy, vinyl acrylic and latex paints. Alkali sensitive coatings such as oleoresinous and alkyd types should not be used. Consult your Enjay sales representative for specific topcoat recommendations.

Optional: Once the RUST-BAN 193 film is completely dry, a thorough washing with fresh water will improve topcoat performance by sealing up micropores in the film and removing excess alkalinity.

However, as is true with all high-performance coatings, optimum performance will be obtained with optimum surface preparation; i.e., white or near-white metal abrasive blasting.

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Optional: Once the RUST-BAN 193 film is completely dry, a thorough washing with fresh water will improve topcoat performance by sealing up micropores in the film and removing excess alkalinity.

EQUIPMENT CLEAN-UP

Good painting practices dictate that spray equipment be cleaned at the end of each period of use or for shutdowns in excess of 30 minutes. Clean, fresh water is all that is required for clean-up.

TYPICAL PHYSICAL PROPERTIES OF RUST-BAN 193

Pot Life @ 75°F, Hours	120
Viscosity No. 4 Ford Cup, Sec.	13 - 16
Density - lbs./gal.	26.4
Flash Point	Non-flammable
Practical Coverage @ 3 mils dry film thickness; sq.ft./gal.	175 - 200
Solids by Wt. %	85.5
Solids by Vol.* %	62

* As determined by wet film/dry film technique

9-24-69

M. Question

The structural steel in unit WE-1 of the West Fremont, which was primed with Rust-ban 191 and "self-cured" was still in good condition after 17 months of exposure. Please explain after considering the following factors:

Answer

The answer to the above question is actually "built-into" the question. It is evidence that the "self-cured" Rust-ban 191 actually "self-cured". To "self-cure" the atmospheric factors must be such that the cure can take place. Protective "pore filling zinc compounds and the "proper" forming of zinc-iron silicate complexs were permitted to form. In other words, environmental impact was low or relatively ineffective as far as being destructive is concerned.

Once the full natural cure of Rust-ban 191 had time to take place, and protective compounds (not necessarily soluble when compared to sulfate) formed and filled the pores, the aggressive factors of Jan-March, 1971 that impacted on the girders of Question "L", did not display the same impact on these (M) girders.

The following atmosphere factors were reported for July through October 1970 (A 4-months period when aggressive factors were at a minimum, allowing Rust-ban 191 time to self-cure.

Date	Sulfur Dioxide $\mu g/m^3$	Water Equivalent
1. July 1970	14.25	--
2. Aug. 1970	14.25	--
3. Sept. 1970	14.25	--
4. Oct. 1970	13.1	2.58

From the above data, it is evident that the most aggressive factor, SO_2, in the atmosphere was at low recorded values during the period the Rust-ban 191 was "sell-curing.

The loss of 0.8 mils of thickness appears normal then for the period of less aggressive environment; and during the critical "self-curing" period of say from July through October, 1970.

N. Question

According to surveys by the resident engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted in San Francisco with Mobil Zinc 1, self-cured, and has been stored in Portland since the fall of 1970 with a loss of approximately 1/2 mil. The resident engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

Answer

In the application of any protective coating, there is always the possibility of improper coating. However, I cannot accept, without some facts to back it up, that the rusty areas of the Mobil Zinc #1 were due merely to improper application. As we have discussed, there are aggressive environmental factors at work at the Portland Fremont Bridge area. I place more importance on the sequence of environmental events that the superstructure steel was subjected to (I have to assume this steel was checked for conformance - proper application and proper film thickness - why shouldn't it have been checked?)

The San Francisco area probably had less aggressive atmospheric factors than the Portland area. Again, because of the success of the self-cure action of Mobil Zinc #1, the environment was conducive to the self-cure and was so accepted. Had this not been the case, some means of inducing cure may have been provided.

It may be repetitious to say, once the inorganic zinc coating has cured and has demonstrated ability to self-cure under those conditions, it probably has more resistance to aggressive environmental action. It must also be considered that aggressive attack is not uniform over this girder surface.

O. Question

We have been told that the distance between the paint gun and the steel surface is very critical with inorganic zinc primer. Would you comment on this?

Answer

Under Question "A", previously answered, parts (10) [the gun being held too close to the steel] and (11) [the gun being held too far from the steel] were reviewed indicating in each case the properties of the resulting applied inorganic zinc coating.

It is true that an important factor in spraying is to hold the gun at the proper distance from the steel. (With all controls and settings also properly adjusted.)

In review, if the spray gun is held too far from the steel surface a very porous, granular and possibly dusty film results. In contrast, if the gun is held too close to the surface, there will be excessive material applied to the surface. This will be identified as "flooding". Also the resulting inorganic zinc coating can take on an "orange-peel" texture, or other waviness, being forced into such patterns and said to be "air rippled".

P. Question

We would appreciate any comments you might have in regards to selection of a thickness gage for this type of work.

Answer

The micro-metrics Tooke Gage is an accurate devise, but the method calls for film destruction.

Attachment #15 describes the General Electric Type B thickness gage, the "Elcometer" thickness gage and the General Electric Permanent Magnet Thickness gage. All three of these are the "non-destructive" type.

I have personal experience with the first two. The G.E. electric Type B requires a source of electricity (110 V.) It is rather heavy but could be adapted (used) for field conditions. It is quite accurate.

The "Elcometer" is a permanent magnet pocket size type of thickness gage. Both gages should be calibrated just prior to use.

ATTACHMENT #15

$$\text{Specific gravity} = \frac{1 + \text{Twaddell reading}}{200}$$

$$\text{Specific gravity} = \frac{145}{145 - \text{Baumé reading}}$$

(2) Acid concentration-Dilute 5 ml. of pickling solution with 50 ml. of water in a porcelain dish. Add 2 grams of unadjusted sodium hexametaphosphate and stir until it is dissolved. Add 3 drops of methyl purple indicator and titrate with standard 0.5 normal NaOH solution to appearance of gray-green color. Percent sulfuric acid (by volume) = ml. NaOH x normality x 0.574.

(3) Percent iron-To 5 ml. of pickling solution, add 50 ml. of water and 5 ml. of dilute phosphoric acid (1:1) in a porcelain dish. Titrate with standard 0.1 normal potassium permanganate until a faint pink color appears.

$$\text{Percent iron (by weight)} = \frac{1.117 \times \text{ml. } KMnO_4 \times \text{normality}}{\text{Specific gravity}}$$

b. Water rinse (Bath 2)-Methods of analysis described above may be used.

c. Rust-inhibiting solution (Bath 3) Rapid control tests of the sodium dichromate concentration may be made with the Klett-Summerson (or similar) colorimeters, comparing the transmission data with curves obtained by measurements with known concentrations of sodium dichromate and phosphoric acid. For control purposes, it may not be necessary to measure the concentration of phosphoric acid, since it is depleted at essentially the same rate as the sodium dichromate.

SECTION III. METHODS OF APPLICATION

Part 1. General

9190.41 FILM THICKNESS OF PAINTS

Knowledge of the thickness of dry paint films is of value to assure that coatings are of adequate thickness and are not excessively thick to cause early failure. Recommended dry-film thickness per coat of paint (for metal surfaces) and the approximate spreading rate (sq. ft. per gallon) which will give that thickness as follows:

1. Formula 117 - 0.5 mil at 220-230 sq. ft. per gallon.
2. Formulas 20, 30 and 104 - 1.5 mil at 295-305 sq. ft. per gallon.
3. Formulas (84 and 84D) - 1.5 mil at 310-320 sq. ft. per gallon.
4. Formulas, 20L, 42, 116, 116D, Haze gray TT-E-490 1.5 mil at 325-335 sq. ft. per gallon.
5. Formulas 5L, 5N, (5-0), 6, 23, 24, 38, 39, 40, 41, 46, 109, 111 and TT-E-00490-1.5 mils at 340-350 sq. ft. per gallon.
6. Formula 43-1.5 mils at 375-385 sq. ft. per gallon.
7. Formulas 119, 120, 122 - 1.5 mils at 145-160 sq. ft. per gallon.
8. Formulas 124, 125, 126 - 1.5 mils at 365-375 sq. ft. per gallon.
9. Formula 121-2 mils at 185-195 sq. ft. per gallon.
10. Formula 129-2-2 mils at 235-245 sq. ft. per gallon.
11. Formulas 105 & 146/50-3.5 mils at 120-130 sq. ft. per gallon.
12. Formula 34-5 mils at 125-135 sq. ft. per gallon.
13. Formula 15 [illegible]-30 mils at 30-35 sq. ft. per gallon.

9190.42 MEASUREMENT OF FILM THICKNESS

Several measuring devices are available for determining paint film thickness. These include the following:

1. General Electric Type B Thickness Gage. The General Electric Type B gage is a rugged, reasonably portable instrument operating from a 115-volt, 60-cycle power supply. It operates on a magnetic principle and can only be used to measure coatings on a magnetic substance. The instrument is rapid and easy to use and can be used on slightly curved as well as flat surfaces. In practice, it is necessary to standardize the scale with a foil of known thickness on a bare area of the same thickness and type of surface as the one on which the measurement is being made, as different surfaces will give different readings. Measurements should not be made close to edges and corners as this will cause variations in the readings. The accuracy of the result varies with the thickness of foil used to standardize the instrument. For best results, the standardizing foil should be close to the actual thickness of the paint film being measured.

2. "Elcometer" Thickness Gage. The "Elcometer" thickness gage (different ranges available) is a light, portable instrument, fitting readily into a coat pocket. It is operated by means of the variation in magnetic force between the metal surface (which must be magnetic) and a self-contained permanent magnet. No outside source of power is necessary to operate the instrument. Measurements can be made on slightly curved surfaces. To operate the instrument, it is necessary to first standardize the dial over a bare area of the same type and thickness of metal as that on which the coating is to be measured. It is important for accuracy to hold the meter in the same plane when taking the measurements as when set to zero. The results obtained will be satisfactory for most purposes for which field measurements are made, providing the necessary precautions are taken in its use.

3. General Electric Permanent Magnet Thickness Gage. This gage is a portable, self-contained gage with a dual scale. The low scale covers the range from 0 to 7 mils and the high scale from 1 to 60 mils. The instrument is also provided with a "go-not go feature" which can be set for a minimum and maximum thickness.

Part 2. Brush Application

9190.51 EQUIPMENT

Many types of brushes are carried in stock listed in Federal Supply Catalog (Department of Defense Section), FSC Group 80. Each brush is made for a particular purpose, and for best results, the right brush for the job must be used. (See Naval Ships Technical Publication Number 17.) The Revised Master List, Part III, contains the allowances of paint brushes for all ships.

9190.52 TECHNIQUE

1. Work paint well into brush before starting to apply.
2. The brush should be dipped into paint not over halfway up the bristles and excess paint removed by patting the brush gently on the side of the can and not on the top. In

Q. Question

Your opinion of the cause of the loss of the inorganic zinc primer.

Answer

All of the items discussed in Question A through P certainly have bearing on the problem of the loss of inorganic zinc film thickness (and corrosion appearing) at the Fremont Bridge site. Obviously if the coating materials are not properly mixed, properly applied, properly cured, its performance will diminish. Because of guidance and inspection points set up in coating these steel parts, I don't think the major factor of the failure lies in the above type of deficiency or error. I believe there is a fundamental cause for the failure and that is the aggressive atmosphere at the bridge site. These aggressive factors were listed as moisture - rain and other condensations - and SO_2. Nothing in Questions B through P has been pointed to the cement plants which put out very alkaline dust particles. These too can be aggressive to the inorganic zinc coating.

Summary

The entire problem of the failure would have definitely been eliminated if the Rust-ban inorganic zinc had some sort of organic barrier or topcoat, (sealer, tie or whatever) applied over it prior to being subjected to the Fremont Bridge site.

# #

RECEIVED
OCT 2 - 1972

FOR FILING

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO **G. L. Green, Acting Division Engineer** DATE **October 2, 1972**
Federal Highway Administration

ORIGINAL SIGNED BY
R. D. ASBURRY

FROM **L. H. Young**
Programing Engineer

Federal Aid Project No. I-405-8(22)304

SUBJECT **Request Change Order Approval**

Contract 7310 , **Extra Work Order No.** 18

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This order covers the cost of seeding and mulching of slopes disturbed by structural excavation for construction of bridge piers.

This work is necessary to prevent erosion of the slopes. This work was not included as a part of the contract work.

Copies of the Engineer's letter of explanation are attached.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer September 19, 1972.

Your approval as of September 19, 1972 is requested.

Attach.

BRW:dg

I-405-8(22) E. Fremont Interch. Section 1969
304 of Stadium Frwy. in Portland
#7310 (Unit A) Folder #3

RR-692

[redacted]

RECEIVED
OCT 5 - 1972.
FOR FILING

RECEIVED
STATE HWY ENGR
SEP 28 '72
REFER TO
FOR
Info | Files | C.O. | R | Action | Ret | File
NOTED
A. E. JOHNSON

5

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 26, 1972

7310

To: Walter Hart
Bridge Engineer
Salem

SUBJECT: John Saroyan's Report on
Zinc Paint Failure
East & West Fremont Approaches

NOTED
TOM EDWARDS

Your letter of September 20, transmitted a report by John Saroyan relative to a series of questions which had been submitted to him with respect to the zinc paint problem on the Fremont approaches. You requested our review of this document by Mr. Saroyan and any comments we might have.

In order to better examine this report, I separated it into two parts ---- (1) those questions and answers which deal with the blasting of the steel and the mechanics of getting the paint onto the girders which is covered by all questions except No.'s 6 and 9 and (2) those questions (6 and 9) which deal with events which occurred after the paint was applied and which might help explain the zinc problems.

Tabulated below for easy reference are the first set of questions dealing with the mechanics of painting. That column shown as "Evidence" was taken from Mr. Saroyan's report and the column entitled "Help Explain Problem" is my evaluation of Mr. Saroyan's answers.

	Cause	Evidence	Help Explain Problem
1.	Excessive blast profile	Course, rough, surface	Yes
2.	Insufficient atomization pressure	Orange Peel & Lack of adhesion	No
3.	Insufficient pot pressure	Granular, dusty, dry, porous coating	Yes
4.	Inadequate Agitation	(a) course, highly pigmented dull areas (b) very glassy, smooth areas (c) areas between (a) and (b)	Yes
5.	Excessive agitation	Modeled, spotty paint film This answer mentions cure solution RB 195. This was not used on RB 191.	Yes

RECEIVED
SEP 27 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Cause	Evidence	Help Explain Problem
7. Excessive atomization pressure	Granular, dusty, porous film	Yes
8. Excessive Pot Pressure	Orange Peel and Lack of Adhesion	No
10. Gun too close to steel	Orange Peel and Lack of Adhesion	No
11. Gun too far from steel	Granular, dusty, porous film	Yes

You will note that my evaluation of answers (2), (8) and (10) is that these causes would not help explain the zinc paint problem. The reason for this conclusion is that the "Evidence" as given by Mr. Saroyan for these three causes is "Orange Peel" paint surface and lack of adhesion. To the best of my knowledge, orange peeling and lack of adhesion has never been mentioned as a problem with the 193 zinc paint. The evidence and effect given by Mr. Saroyan in the answers to the other questions in this first catagory (questions (1), (3), (4), (5), (7) and (11) do suggest that these causes could be contributors towards the zinc paint problem. However, it is my personal opinion that these probably did not play a very large role in contributing to the problem. All the "Evidence" listed is manifested in a very poor-appearing paint job. If we had any paint inspection at all in Vancouver, and I'm sure we did, the inspectors would have noticed this poor product and we would have had some mention of this. This is not to say that some of the "Causes" listed didn't occur and that they didn't have some bearing on the problem but I don't believe that the answer to the problem lies in the mechanics of putting the paint on the girders.

Question No. 6 deals with the consequences of exposing the freshly painted girders to rainfall. The answer assumes that RB 191 was postcured prior to exposure. This was not the case. This answer should be amplified with the understanding that the RB 191 was not postcured. RB 193 was postcured with RB 6851 but this answer does not mention RB 193. I would assume that the answer would be the same, but this should be clarified. It is very interesting to note that the "Evidence" given in the answer of a "blotchy" or a water stained area describes the steel girders as they were received in Portland.

Question No. 9 deals with the effects of application of various rates of acid curing solution on the freshly painted girders. Unfortunately Mr. Saroyan is talking about the application of RB 195 curing solution on RB 191 inorganic zinc. In actuality, RB 6851 acid cure, was applied over RB 193. It may be that the data supplied by Mr. Saroyan applies equally to the paint and acid actually used but this should be verified. My comments that follow assume that Mr. Saroyan's answer would be the same if he had been using the correct formula numbers.

Saroyan goes through a chemical analysis of the acid cure and paint to end up verifying that Enjay's recommendation of using 1/2 gallon of curing acid per gallon of inorganic zinc is correct. He then goes on to calculate a spreading rate for the acid based on an assumed spreading rate for the inorganic zinc. By assuming that the zinc was applied three dry mils thick over the peaks of the profile and further that the profile was a mil and a half to two mils deep, he concludes that the spreading rate for the zinc was 200 square feet per gallon and that, therefore, the spreading rate of the acid was correctly stated by Enjay at 400 square feet per gallon.

Mr. Saroyan's assumptions are based on the data that has been supplied him. However, I believe that some refinements should be made in these assumptions. With respect to the thickness of the film, a modification was made early in the project with respect to where the top of the blast profile stopped and the bottom of the paint film started and I am reasonably sure that some projection of the blast profile into the paint film was allowed when it came to measuring the film thickness. Secondly, when the change was made to RB 193, since it had better adhering qualities, the requirement of a one and a half to two mil anchor pattern was dropped in favor of obtaining a near-white blast. As a result, it was reported that the anchor profile used for the 193 paint was a half mil thick.

Therefore, where Mr. Saroyan assumes that there is a total of four and a half mils of zinc paint on the steel for spreading rate purposes, I believe a closer approximation would be on the order of three mils, say two and a half mils for the paint thickness and a half a mil allowed for filling the blast profile, giving a total of three mils. This would give a spreading rate for the zinc paint of 300 square feet per gallon and a spreading rate for the acid of 600 square feet per gallon. Since Canron was instructed by Enjay to use a spreading rate of 400 square feet per gallon and further, assuming that Canron painters may have used the theory that if a little is good a lot is better, it is conceivable that the amount of acid cure actually applied may have approached double that actually required.

If one can correctly hypothesize that the amount of curing acid actually applied is anywhere near double that which should have been applied then it is not difficult to explain what happened to the inorganic zinc paint when one reads Saroyan's "effects" of the application of acid at a rate of 250 square feet per gallon when he is assuming that 400 square feet per gallon is the correct rate. The "effects" as described by Saroyan of this "overdose" of acid describes almost exactly the phenomenon of zinc paint disappearance which we actually experienced. In my memo of April 8, 1971 written after visiting Canron's paint line in Vancouver, there is a statement that "Gordon Smith of CanTest has a theory that the phosphoric acid which is being used for the post-cure is absorbed deep into the zinc coating, possibly clear to the base metal, then later when the paint is exposed to moisture the unused acid is reactivated, comes to the surface and softens the surface of the zinc". If it can be shown that excessive acid was applied to the inorganic zinc, then Gordon Smith's theory takes on added significance.

The above-mentioned assumption of a total of three mils of zinc yielding a spread rate of 300 square feet per gallon of zinc is predicated on the operation in Canron's plant prior to the discovery of the paint problems in Portland. After this point in time, Canron made a deliberate effort to put more zinc on the girders and even went so far as to apply two coats. They have recently told us that even these girders have given trouble in Portland.

If these latter girders have also had zinc paint problems and perhaps Mr. Shotwell can comment on this, I believe this also can be explained by the application of acid cure. If you assume the milage of zinc put on in the latter condition is 5 to 5-1/2 mils with an additional allowance of a half mil for the profile covering, then a spreading rate for the zinc would be on the order of 150 square feet per gallon which would give a spreading rate for the acid of about 300 square feet per gallon. If you also assume that at this point in time Canron's people were following Enjay's recommendations for acid spreading rate more closely, and my memo referred to above mentions an acid spreading rate of 460 square feet per gallon, then you would have the situation where not enough acid was being applied and the effect described by Saroyan under his spreading of 800 square feet per gallon would apply. According to Saroyan, this condition would also promote premature rusting because the paint would not be adequately cured out.

Under the answer to question 9, Saroyan comments on the transparencies sent him. I didn't see these, but if they were typical of our problem, and I presume they were, his comment that they depict an obvious excess of curing solution is particularly significant in light of what I have said above.

I have sent copies of this letter to the three Resident Engineers on the Fremont project hoping that they would comment on my review as well as Saroyan's report and send their thoughts on both to you.

H. S. COULTER
Metropolitan Engineer

By: Edward L. Hardt

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb
cc: W. E. Johnson
R. E. Shotwell
John Howard
R. O. Cunningham
Dean Mandrell

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: September 5, 1972

In reply refer to: 10-35-DA

FROM : Mr. G. L. Green, Acting Division Engineer
Salem, Oregon

SUBJECT: I-405-8(20)303, I-405-8(22)304, I-405-8(23)304
I-405-8(24)304, I-405-8(28)303 - 4
East & West Fremont Interchanges
Stadium Freeway
State Force Order No. 4
Total Estimated Amount of the Order - $8,500.10
Federal Participation - $7,650.09

Reference is made to Mr. Young's letter of August 23, 1972, concerning the subject order.

We are approving the use of State Forces as being in the public interest under provision of PPM 21-6.2 for the following reasons:

1. The contractor is neither properly equipped nor staffed to perform the work contemplated under the order.

2. The State has the necessary special striping equipment and trained personnel to perform the work most economically.

Striping to be performed should be in conformity to the requirements of the Manual on Uniform Traffic Control Devices and will thus be eligible for participation under the provisions of Paragraph 6 of PPM 21-15.

Federal participation will be based on the agreed unit price for striping. The estimated total costs of the work to be done under this order is $8,500.10 with Federal participation of $7,650.09.

Enclosure
State Force Order No. 4

NOTED
F. B. KLABOE

9-7-72

RECEIVED
STATE HWY ENGR
SEP 7 '72
REFER TO
FOR

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

RECEIVED
AUG 29 1972
FOR FILING

7310

August 25, 1972

TO G. L. Green, Acting Division Engineer
Federal Highway Administration

Federal-aid Project
No. I-405-8(22)304

FROM George M. Baldwin
Administrator of Highways

by ORIGINAL SIGNED BY
R. D. ASBURRY

L. H. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7310 Extra Work Order No. 17

Project East Fremont Interchange, Unit "A"

Highway Stadium Freeway

County Multnomah

The order covers replacement of Dresser couplings with Victaulic couplings on the dry fire lines. Tests indicate the Dresser couplings are not capable of withstanding the water pressures involved, therefore requiring their replacement.

Attached are copies of a letter from the Assistant Metropolitan Engineer.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on August 3, 1972.

Your approval as of August 3, 1972 is requested.

Attachments

JK:js

SEP 5 - 1972

FOR FILING

A E Johnson

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

7310

DATE August 25, 1972

NOTED
A. E. JOHNSON

TO Memorandum to the File

FROM R. W. Ellison
Bridge Administration Engineer

R. W. Ellison

RECEIVED
AUG 31 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

SUBJECT East Fremont Interchange, Contract
West Fremont Interchange, Contract
Contracts 7310, 7311, and 7312
Paint Claim

A meeting was held beginning at 10 a.m., July 14, 1972, in the large conference room in the State Highway Building, Salem, regarding the paint claim of the subject projects. Persons in attendance are listed on the attached sheet.

Mr. Franzke opened the meeting indicating that when the paint problem was discovered Canron began investigating and assembling data as to its cause. Some of this data was presented to the Oregon State Highway Division; additional data was presented upon request by Oregon State Highway Division. Further data will be presented if specific requests are made. He continued that the State has not indicated what the contractor did wrong or what the contractor did not do that should have been done relative to the paint problem and that he would like to know our thinking in this matter.

Mr. Lindas read excerpts from Pittsburgh Testing Laboratory's painting inspection reports, and a summary of his meeting with Mr. Ken Peterson of Pittsburgh Testing Laboratory. He then queried whether comments indicate a poor application procedure or the paint system itself to be the cause of the problems. He further indicated that the Oregon State Highway Division has paint test panels which were made at the time the trouble began. The panels were described by Dean Mandrell.

Bob Cunningham stated that he has been unable to verify the paint film thickness readings made by Pittsburgh Testing Laboratory on Fremont superstructure members at the paint shop. However, he has not been able to detect any loss of paint since the members arrived in the Portland area.

Mr. Franzke countered that this does not correspond to his findings on the job,and he showed many photos which allegedly showed rusting of superstructure members. His people also found less paint on the members than originally applied.

Mr. Lindas suggested that the rust could be caused by improper application.

Mr. Franzke agreed and stated that inspection should find such and require correction. He said Canron used wet film gages and a wet to dry film ratio to get proper dry film thickness. Calculations based on quantity of paint used show an average of 4 mils ±. Canron and Pittsburgh Testing Laboratory both checked and were satisfied. It is hard to believe painting is cause of rust.

Mr. Lindas wondered why there are problems with the bridge, and no problems with the test panels. He suggested the use of a sweeping motion for application was not correct.

Mr. Franzke insists that the contractor followed Enjay's application instructions as required by specifications. If this produced a bad job, it is no fault of the contractor.

Mr. Jackson said inquiries to Enjay, SSPC, and the Association of Corrosion Engineers indicated that Mr. John Saroyan has most expertise in this system. Mr. Saroyan made chemical tests and reports for the contractor.

Mr. Franzke stated that all expert literature shows sacrifice to continue unless paint is sealed.

There was some discussion and disagreement as to how long zinc paint without a seal coat will last. It depends alot on the atmosphere. Al Johnson brought up the fact that Enjay did not recommend a seal coat.

Mr. Franzke said the contractor recommended this with Enjay approval. This recommendation was made after the problem was discovered in February, 1971. It would not solve the problem to that date, but would solve future problems. Seal coat would slow sacrificial rate, but no one knows how much. He stated that photos show completely painted girders with rust, but did not know where rust came from, and that the girders are being repainted.

Al Johnson countered that only holidays are being painted, i. e., areas not painted before. There was some question as to exactly what the photographs do show.

Mr. Lindas suggested that Mr. Saroyan's report would be of value to the State. He is convinced Mr. Saroyan knows more about this system than any other man.

Mr. Jackson agreed to allow Mr. Lindas to talk with Mr. Saroyan. Mr. Franzke asked Mr. Lindas to get together with him to make arrangements to discuss this matter with Mr. Saroyan. Mr. Lowry suggested Mr. Lindas make a list of questions he has regarding the painting. Mr. Lindas and Mr. Franzke are to get together during the week of July 17.

RWE/ag
cc L. I. Lindas
A. E. Johnson
R. O. Cunningham
J. D. Howard
Charles Lobaugh
R. Shotwell
Ed Hardt
W. J. Hart
cc Dean Mandrell
J. E. Chidsey
Ed Rief
R. A. Franzke-Canron

MEETING RE PAINT, FREMONT BRIDGE
July 14, 1972
Salem, Oregon

In Attendance:

L. I. Lindas, Asst. Attorney General & Counsel	OSHD
R. O. Cunningham	OSHD
J. D. Howard	OSHD
Charles Lobaugh	OSHD
Bob Shotwell	OSHD
Ed Hardt	OSHD
Bruce Jackson	Canron
R. A. Franzke	Canron
Dick Davies	Canron
Terry Lowry	Corrosion Coatings
Walter J. Hart, Bridge Engineer	OSHD
Dean Mandrell, Materials	OSHD
J. E. Chidsey, Materials	OSHD
R. W. Ellison, Bridge Administration Engineer	OSHD
A. E. Johnson, Assistant State Highway Engineer	OSHD
Ed J. Rief, District Inspection Engineer	OSHD

UTILITY UNIT

OREGON STATE HIGHWAY DIVISION

NOTED
A. E. JOHNSON

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310 Phone 378-6511

August 24, 1972

Union Pacific Railroad Company
P. O. Box 8979
Portland, Oregon 97208

ATTENTION: Mr. T. P. Rogers

Re: Construction Problems
East Fremont Interchange Section
Stadium Freeway
Multnomah County
Project No. I-405-8(22)304
Contract No. 7310
Your File: D 9010-32-17

Gentlemen:

This is in reply to your letter dated August 2, 1972, wherein you point out certain objectionable construction practices you have observed by our contractor, Drake-Willamette Company, in performing his work on the above captioned project.

With regard to the numbered paragraphs of your letter, we have the following to offer:

1. The problem of dripping water has been brought to the contractor's attention continuously by our Resident Engineer and the contractor has cleaned many of the cars of your employees and engaged your janitorial service to scrub your buildings and windows. They have also requested that your employees not part their cars on Russell Street beneath the bridge construction. I suggest you encourage your employees to park their cars in a different location until this phase of the construction is completed.

2. It is regrettable that this concrete was dropped from the structure and we are fully aware of the dangers involved. This has been called to the contractor's attention and he has changed his method of operation and eliminated this problem.

3. During the placement of structural steel, areas were roped off and flagmen used to keep cars and pedestrians clear. However, a large amount of overhead work involved makes it extremely difficult to avoid dropping miscellaneous items. It is reasonably apparent, when there is work occurring approximately 120 feet overhead, that anyone passing beneath the structure should exercise extreme caution. Both the contractor's crew and the State personnel have continuously cautioned your employees about passing under a construction area without observing activities overhead, and you must understand that this type of danger is inherent to this type of work, and your employees must be instructed to use caution when in the proximity of the work overhead.

RECEIVED
AUG 25 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Throughout the work performed by our contractor on this project, construction material subject to the wind has been anchored although the plywood has blown from this structure as you indicate. Corrective measures have been taken by our contractor.

Insofar as the painting is concerned, I believe the meeting on August 15 with our Assistant Resident Bridge Engineer and the paint contractor have resolved the problems mentioned in your letter.

Very truly yours,

ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Railroad and Utility Engineer

TWL:dl

cc: A. E. Johnson w/copy of UPRR letter
C. T. Keasey "
W. J. Hart "
H. S. Coulter "
R.E. Shotwell "
Jack Hesla "

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

P. O. BOX 6870
PORTLAND, OREGON 97208

August 2, 1972

File Reference:

D 9010 - 32 - 17

Routing
Keasey
Bond
Walker
Johnsen

RECEIVED
AUG 8 1972
CONSTRUCTION SECTION

Pease
Glenn
Litchfield
NOTED
Berg
J. M. CARTWRIGHT

Mr. George M. Baldwin,
Administrator of Highways
Oregon State Highway Division
Highway Building
Salem, OR 97310

Attention: Mr. T. W. Litchfield,
Railroad and Utility Engineer

Dear Sir:

East Fremont Bridge Section
Stadium Freeway
Multnomah County Project No. I-405-8(22)304
Contract No. 7310

I would like to bring to your attention some of the construction practices which have been and are presently being utilized by the State's Contractor, Drake-Willamette Company, in the construction of the above captioned project, especially the portion which crosses over our trackage and property at Albina (Portland), Oregon.

Some of the objectionable construction practices consist of the following:

1. Water curing of structural concrete in the overhead structures results in almost continual dripping of water, which deposits lime and cement residue on our office buildings, windows and automobiles.

2. On July 31, 1972, the Contractor dropped a considerable amount of broken fist-sized concrete onto our tracks at the foot of Russell Street, as well as within the travelled portion of Russell Street adjacent to your Resident

Engineer's office. These pieces of concrete, which resulted from the Contractor's chipping operation, were blown off the bridge by the Contractor using an air hose and without any flagmen or barricades below and without giving any notice to our Inspector or flagmen.

3. During the placement of structural steel, the Contractor has exercised little or no regard for the safety of pedestrians or vehicular traffic passing below the construction area. Numerous reports were received in this office of persons having narrowly been missed by bolts, nuts, washers, etc., which were dropped from the bridge. On two separate occasions, one on a weekend, full-sized pieces of plywood were blown off the bridge.

These incidents indicate almost utter disregard for human safety and have been a continuing source of agitation among this office, your Contractor and the State Resident Engineer's office. I realize the State's policy of not wishing to dictate construction methods to its contractors, but you must appreciate our position and initiate some semblance of control, for safety if for no other reason, over your Contractor.

The work of the Painting Subcontractor is now progressing to the point where we can expect wind-blown paint on our buildings, windows, automobiles, trains, etc., unless corrective measures are inaugurated. It is requested that the State's Construction Engineer review the painting procedure and consider using a shield of some type to contain or deflect the paint spray. Otherwise, brushing or rolling might be necessary.

It is requested that you investigate these practices and institute appropriate controls over the Contractor which will alleviate the continual hassle between this office and your Contractor. Hopefully, you can devise some method whereby we will not be subjected to future problems, especially resulting from the bridge painting operation.

Yours very truly,

R B Hardin

R. B. Hardin
Superintendent

cc: C. T. Kersey
H. S. Coulter
Robt. Shotwell

8-8-72

RECEIVED

5

7310

Salem, Oregon

August 10, 1972

V. E. Sloog
Controller

L. H. Young
Programming Engineer
E. Fremont Interchange: Unit "A"
Contract 7310

The billing voucher submitted to the Federal Highway Administration for reimbursement of expenditures to July 31, 1972 indicates an amount due of $141,672.04 in federal funds which exceeds the amount of funds set up for the project. In order to collect this amount due it is necessary to submit a revised estimate and modification of project agreement to FHWA indicating the items which constitute the increase in cost. In checking the contract to determine which items of cost were increasing it was noticed that the expenditures for construction engineering as charged to the accounting records to July 31, 1972 on contract 7310 are considerably in excess of the amount authorized on the contract and also the amount indicated as expended on the Progress estimate and cost report for work accomplished to July 5, 1972. Since the construction engineering as charged greatly exceeds the amount allowable on Unit "A" it is not possible to modify the project agreement at this time to collect the additional federal funds indicated as due on the project. Therefore if reimbursement is to be received on these expenditures it is necessary that transfers be made on that portion of the construction engineering as may be applicable to either contract 7311 (Unit "B") or 7312 (Unit "C").

Enclosed is a copy of Mr. Merchant's letter of December 1, 1969 to R. E. Simpson with an attached copy of the procedures which were proposed to simplify all department and inter-department matters. Enclosed also is a tabulation showing the status of engineering charges to the three contracts as of the July 31, 1972 accounting records, the amounts of engineering authorized on each of the contracts and the amounts listed as expended on the Progress estimate and cost Report as of July 5, 1972 on each of the contracts.

cc: W. J. Hart

DAR:kds

E. Fremont Interchange Contracts

Unit "A" Contract 7310 Prefix 626-1017		Unit "B" Contract 7311 Prefix 626-1018		Unit "C" Contract 7312 Prefix 626-1022	
Expenditures shown on Accounting Records as of 7-31-72					
900 P	$977,977.98	900 P	$60,601.75	900 P	$48,903.60
900 N	13,063.53	900 N	4,122.14	900 N	1,104.24
915 P	442.34	915 N	31.28	950 P	96.76
950 P	834.36	950 P	53.22		
985 P	284.98	950 N	1.08		
Total	$992,603.19	Total	$64,809.47	Total	$50,104.30
As Shown on Progress Estimate and Cost Report to 7-5-72					
	$435,540.71		$306,491.61		$64,524.55
Construction Engineering Authorized under the Contracts					
	$663,273.25		$450,402.82		$110,904.68

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

December 1, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Dear Mr. Simpson:

East Fremont, Unit A Cont. 7310 FAP I-405-8(22)304
East Fremont, Unit B Cont. 7311 FAP I-405-8(23)304
East Fremont, Unit C Cont. 7312 FAP I-405-8(24)304

All three contracts were awarded to one contractor, Drake-Willamette Joint Venture. Routine administration of each contract as a separate entity in some instances is not practical. Because of this the contractor has requested certain concessions in the contract specifications and overall project administration. A copy of his request of October 30, 1969, is attached.

In line with our conference of November 21, we are granting certain concessions to the contractor. These are outlined in our letter of November 28, 1969 (copy attached). With your concurrence we will proceed in the manner outlined in this letter. It is mutually advantageous to both the State and the Contractor to combine as many of the duplicating details as possible.

In addition to the items listed in the Contractor's letter request, we will try to simplify all Department and Inter-department reports insofar as possible. A copy of our procedures to accomplish this is attached for your information.

Very truly yours,

Ivan D. Merchant
Bridge Engineer

CAG:DH
Attachments

cc Tom Edwards
A. E. Johnson
F. D. Morgan (2)
G. E. Rohde
V. E. Skoog
Laboratory
Robert Shotwell

Routing
Morgan
Docker
Bond
Walker
Jochims
Johnson

RECEIVED
DEC 1 1969
CONSTRUCTION DIVISION

EAST FREMONT APPROACH CONTRACTS

PROCEDURE FOR HANDLING MISCELLANEOUS
ADMINISTRATIVE PROCEDURES

Department Engineering Charges

E. Fremont Unit A - 7310	$12,994,986.98	54%
E. Fremont Unit B - 7311	8,982,856.29	38%
E. Fremont Unit C - 7312	2,007,348.73	8%
	$23,985,192.00	100%

Charge all items of cost to one prefix. Resident Engineer will, each month, clear this prefix by transferring on a pro rata basis to other assigned prefixes. Resident Engineer can use costs shown on the Job Cost Summary by Crew Report furnished the Resident Engineer monthly by the Accounting Division as a basis for this.

Calendar Day Count Report

One report required. Status of each contract to be shown in separate columns of the report.

Price Agreements, Orders for Extra Work and State Force Orders

If applicable to one unit only, prepare in usual manner; if applicable to more than one unit, list all units involved (with FA project numbers) and State pro rata share chargeable to each unit. Estimates to show amounts chargeable to each unit. Supporting data in usual number of copies for a single unit.

Start and Complete Notices, Stop and Resume Work Orders, Division Inspection Reports

Individual reports for each contract.

Weekly Reports

Resident Engineer to work up form to combine all three contracts in a simgle report and submit same for approval. Prior to approval individual reports on each contract are to be submitted.

RECEIVED
JUL 28 1972
FOR FILING

Don. Blue's

7310

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
July 28, 1972

To: Leonard Lindas
Ass't. Attorney General & Counsel
Salem

SUBJECT: East & West Fremont Bridge
Approaches
Contracts 7214, 7310 & 7311
Inorganic Zinc Paint Problems

I recently wrote to Enjay Chemical Company soliciting their comments with respect to our problems on the Fremont project regarding inorganic zinc primer. In response to this inquiry, attached you will find a copy of a letter from Enjay signed by Don Blue dated July 26.

The substance of this reply is that

1. The paint was applied properly and that the acid cure would not have adversely affected the zinc and

2. For use in the Portland area the inorganic zinc primer should have been protected with at least one coat of topcoat applied in the shop.

To the best of my knowledge, this is the first time that the Enjay Chemical Company has suggested that their inorganic zinc should have been protected prior to application of the vinyl finish coat. This letter is forwarded for your information and for whatever action you feel might be called for.

H. S. COULTER
Metropolitan Engineer

NOTED
A. E. JOHNSON

By:

ORIGINAL SIGNED BY EDWARD L. HARDT

EDWARD L. HARDT
Assistant Metropolitan Engineer

RECEIVED
AUG 1 1972
OFFICE OF
STATE HIGHWAY ENGINEER

EH:pb

Encs

cc: W. E. Johnson w/attach.
Walter Hart "
R. E. Shotwell "
John Howard "

NOTED
JOHN EDWARDS

RECEIVED
JUL 31 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

ENJAY CHEMICAL COMPANY

METROPOLITAN ENGINEER
RECEIVED
JUL 28 1972
ME AME AME MOE MDE MTE

ENJAY

SPECIALTIES DEPARTMENT
INDUSTRIAL COATINGS

July 26, 1972

Mr. E. L. Hardt
OREGON STATE HIGHWAY DIVISION
Metropolitan Section
5821 N. E. Glisan
Portland, Oregon 97213

Dear Sir:

This letter is in response to your letter of July 6, 1972 in which you solicited Enjay's opinion as to probable causative factors for the problems you have encountered with RUST-BAN 191 and 193 Inorganic Zinc Primer used on the Fremont Street Bridge.

I observed some of the coating application and conducted film thickness determinations at Canron's Vancouver Plant. I observed that the specified amount of coating was applied. Pittsburgh Testing Laboratory personnel, your agents, were constantly recording film thicknesses on the steel girders and their markings indicating adequate dry film thicknesses were quite visible. Also, the manner in which the girders were positioned during the coating operation would have, in my opinion, precluded the excess application of curing accelerator in a one coat application due to the viscosity of the accelerator and tendency to run off the steel.

Regarding exposure of the applied coating, the slow speed with which the steel girders moved through the coating operation would essentially preclude moving the steel girders into the elements before the coating was properly cured (except for the possible exposure of an end of a girder). As you are aware, application of the curing accelerator caused rapid curing of the inorganic zinc. Further, the girders were coated upside down and the interior of them wasn't exposed to the elements initially.

You mention the possibility of a hostile environment in Portland (chemicals in the air) along with flushing action of winter rains causing the zinc in the coating to sacrifice itself to protect the steel substrate (as the inorganic zinc coating is supposed to do). These are certainly probable causes of the problems you are experiencing. For example, I have observed and taken photographs of the same type of rusting on the steel pieces for the superstructure (coated with Mobilzinc #1). It is apparent that the zinc coatings used on the Fremont Bridge have undergone accelerated weathering, as it were, due to the nature of the environment. In environments such as this, it is a good practice to use a multi-coat topcoat system whereby at least one coat of organic topcoat is applied

RECEIVED
JUL 31 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

in the shop to prevent exposure of the zinc coating to severe fresh water washing action and/or chemical fallout. Such a practice was used by the State of California on the San Diego-Coronado Bridge and the San Mateo-Hayward Bridge and is more or less in general use there on inorganic zinc shop coated structures.

I trust these comments will be of some use to you. Please contact me if we can assist further.

Very truly yours,

D. R. Blue

DRB:hg

RECEIVED
JUL 25 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO G. L. Green, Acting Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

DATE July 25, 1972

Federal-aid Project
No. I-405-8(22)304

FROM George M. Baldwin
Administrator of Highways
ORIGINAL SIGNED BY
by R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT **Request: Change Order Approval**

Contract 7310 **Extra Work Order No.** 15

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

The Order covers purchasing five 400 watt luminaires complete with lamps. These luminaires will be mounted on the overhead steel structure between SW stations 310+76 and 313+78 in lieu of the planned 250 watt units. This substitution is in order to provide adequate illumination.

The 250 watt units which are on order will be transferred to the State upon receipt and the project will be credited for their value.

Attached are copies of a letter from the Assistant Metropolitan Engineer.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on July 6, 1972.

Your approval as of July 6, 1972 is requested.

Attachments

JK:kds

RECEIVED
JUL 25 1972
FOR FILING

OREGON STATE
HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE July 24, 1972

TO G. L. Green, Acting Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Federal-aid Project
No. I-405-8(22)904

FROM George M. Baldwin
Administrator of Highways
ORIGINAL SIGNED BY
by R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT Request; Change Order Approval

Contract 7310 Extra Work Order No. 16

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

The Order covers modifying the installation of flexible conduit on the underdeck luminaires. The installation as provided on Drawing No. 25316 proved to be very unsightly. The conduit will be installed so that it is less noticeable.

Attached are copies of a letter from the Assistant Metropolitan Engineer.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on July 11, 1972.

Your approval as of July 11, 1972 is requested.

Attachments

JK:kds

OREGON STATE
HIGHWAY DIVISION

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

July 6, 1972

7310

Enjay Chemical Company
8230 Stedman Street
Houston, Texas 77029

ATTENTION: Don Blue

Gentlemen:

Structural steel girders for the East and West Fremont approaches in Portland were painted with Enjay's Rust Ban 191 and 193 inorganic zinc primer in Vancouver, British Columbia and then shipped to Portland. After arrival in Portland about three months after the time the Rust Ban 193 was applied, the steel began to rust. Paint thickness readings taken at the time of the rusting showed film thicknesses in the order of one mil or less.

Canron Ltd., the steel fabricators and primer painters, maintain that the three mils of inorganic zinc specified was applied in their plant and that it somehow disappeared in the ensuing three month period. The purpose of this letter is to solicit your thoughts with respect to what could have caused this apparent paint film thickness loss. Our investigations indicate that one or more of the factors listed below may have contributed to this phenomenon:

1. The acid which was used for a curing accelerator may have been applied too heavily.

2. The freshly-painted girders may have been exposed to the winter-time elements before the paint had been properly cured.

Canron is contending that the supposedly hostile environment in Portland together with the exposure of the paint to flushing action of the winter rains has caused the Rust Ban 193 to sacrifice itself in a matter of several months to the point where it no longer protects the steel. As suppliers of the paint, we request your analysis of this problem as to probable causative factors. We would appreciate your earliest reply on this matter.

H. S. COULTER
Metropolitan Engineer
By:

ORIGINAL SIGNED BY EDWARD L. HARDT

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb
BCC: A. E. Johnson
Leonard Lindas
Walt Hart

NOTED
A. E. JOHNSON

JUL 7 Rec'd

RECEIVED
JUL 12 1972
FOR FILING

7310

July 6, 1972

Davies, Biggs, Strayer, Stoel and Boley
Twenty-Third Floor
900 S. W. Fifth Avenue
Portland, Oregon 97204

Attention: Richard A. Franzke

Gentlemen:

This is to acknowledge receipt of your letter of June 28 with affidavits concerning the status of several State Highway construction contracts.

Attached are certified copies of the contract and bond pages covering Contract Nos. 7214, 7310, 7311 and 7312.

We are also enclosing a tabulation sheet giving the percent completed, estimated completion date and percent paid as of May 31, 1972, covering the four contracts.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

By
C. W. Head, Assistant Secretary

CWH:dr

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERS
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
EDWARD L. EPSTEIN
BRIAN O. BOOTH
WILLIAM M. McALLISTER
BARNES H. ELLIS
HOWARD M. FEUERSTEIN

JOHN E. HUISMAN
BERTRAND J. CLOSE
VELMA JEREMIAH

PHILLIP D. CHADSEY
KENNETH D. STEPHENS
DAVID P. MILLER
TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
WALTER C. MINNICK
JERE M. WEBB
RONALD S. GROSSMANN
LUCIAN J. CARSON
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
K. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

June 28, 1972

Mr. Floyd Query, Secretary
Oregon State Highway Department
State Highway Building
Salem, Oregon 97310

Dear Mr. Query:

We are counsel for Canron Limited, which was sub-contractor for furnishing structural steel on the following contracts:

West Fremont Interchange, Contract 7214,
Prime Contractor - Andersen-Hannan, Joint Venture

East Fremont Interchange, Contract Nos. 7310,
7311, 7312, Units A and B, Prime Contractor -
Drake-Willamette, Joint Venture

With respect to each of the above-mentioned contracts, please advise:

(1) The present status of the work in terms of a percentage of completion and the expected completion date and probable date of formal acceptance;

(2) The status of payments to the prime contractors as of May 31, 1972 in terms of percentage of the total anticipated payments under such contracts.

Enclosed herewith are affidavits by the undersigned pursuant to ORS 279.512 et seq. Please furnish certified copies of the contracts and bonds pertaining to the above-mentioned projects.

7/3 Sent copy to Vince G. for Info -

Acc, I think Contract + last page & then 9 will suffice if identified by contract no. F.B.

NOTED
FLOYD QUERY

NOTED
C. W. HEAD

Your assistance in these matters will be very much appreciated.

Very truly yours,

Richard A. Franzke

RAF:pm
Enclosures

RECEIVED
JUL 3 1972
OREGON
STATE HIGHWAY COMMISSION

A F F I D A V I T

STATE OF OREGON)
) ss.
County of Multnomah)

I, RICHARD A. FRANZKE, being first duly sworn, on oath depose and say:

I am counsel for Canron Limited, a subcontractor under Drake-Willamette, a joint venture, pursuant to Contracts Nos. 7310, 7311, 7312, Units A and B, for construction of the East Fremont Interchange, in Portland, Oregon, and I make this affidavit in support of Canron Limited's request for certified copies of the contract and bond pertaining to said project. Canron Limited has supplied labor and materials in connection with said project and has a claim therefor that has not been paid.

Richard A. Franzke

Subscribed and sworn to before me this 28th day of June, 1972.

Patricia A. McBride
Notary Public for Oregon

My commission expires: 10-15-74

RECEIVED
JUN 29 1972
OREGON
STATE HIGHWAY COMMISSION

	(1) Percent Completed	(1) Estimated Completion Date	(2) Percent Paid To 5-31-72
7214	99.5	7-31-72	98.6
7310	95.2	9-1-72	90.2
7311	98.5	9-1-72	95.6
7312	98.1	9-1-72	94.5

7-5-72
Jim Kinne

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
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JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
E. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

7310

June 30, 1972

RECEIVED
JUL 3 1972
LEGAL

Mr. Leonard I. Lindas
Chief Counsel
Oregon State Highway Department
Salem, Oregon 97310

Dear Leonard:

Re: Fremont Bridge Zinc Primer

I've tried several times this week, without success, to reach you by telephone to determine the status of your review of the material we recently submitted. I know from our past conversations that you have been very busy and have been forced to delegate some of these things to other people. Nevertheless, as I'm sure you understand, my client is extremely anxious to get this whole matter resolved as soon as practicable. I think you are familiar with the background of the problem which contributes to Canron's feeling that the problem is not receiving as much attention as it should from those in whose hands the problem now rests; for the benefit of others who may not be familiar with that background, I will very briefly summarize the chronology of events.

The rusting through the primer was first noticed in February, 1971, nearly 18 months ago. Immediately Canron went to work seeking an explanation of the problem, and hired outside consultants to assist in that study. Canron subsequently made a specific recommendation it thought would avoid the rusting problem, i.e., application of a vinyl seal coat in the shop. The Highway Department first approved this solution, and then, without explanation, rescinded its approval. In the months following, although the State had retained its own consultant, it would never permit its consultant and Canron's to meet and deal directly in exploring the problem and arriving at a solution. Throughout this period and for months after, Canron conducted studies and investigations, counseled with numerous

JUL 3

experts, and in general made an exhaustive effort to determine the cause and the appropriate solution of the problem. I think any objective observer familiar with the facts would admit that the other parties did precious little during this time to really get to the root of the problem.

Following those months of investigation and study, Canron presented to the State in February, 1972, a comprehensive statement of its position and the result of its investigation. In that presentation we tried to cover every aspect of the issue involving selection and application of the paint, analysis of the specifications, chronology of events, legal issues arising under the contract, etc. We invited critical review of that analysis. Several months later you asked for additional detail on two specific points on which, apparently, attention had been focused in the course of your review. On June 2 I submitted to you the additional information you requested and assured you we were willing to try to furnish answers to any other questions you might have. To date we have not been asked to submit any additional information.

While I do not in any way want to interrupt your orderly review of this problem, at the same time we are I think understandably becoming perturbed by the amount of time it is taking to get a statement of the Highway Department's position. After all, the Department has been aware of the paint problem as long as anyone. While it is true you have had personnel changes within the Department, we have also, and that is simply a fact of life we all have to live with.

I think you know, Leonard, from our conversations and from the material we have furnished, that I am completely confident Canron is not responsible for the failure of the zinc primer, and I have no doubt that you will eventually arrive at that conclusion, also, bearing in mind that we questioned the State specification from the very beginning. As I have told you, I have no desire particularly to start litigation to achieve a result that can as well be accomplished by all parties' sitting down together and reviewing the facts. On the other hand, we feel we have been both cooperative and patient to this point,

and we would like now to see a final resolution of the problem.

Very truly yours,

Richard A. Franzke

RAF:pm

cc: Canron Limited
Attention Mr. Bruce Jackson

FORM 6-00 (REV. 10-00)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
June 14, 1972

To: Walt Hart
Bridge Engineer
State Highway Building
Salem

SUBJECT: East Fremont Interchange
Units A & B
Contracts 7310 & 7311
Justification for Carbolene Vinyl

You have asked that this office prepare supporting data that will justify Federal participation in the cost in the change from Enjay vinyl to Carbolene vinyl on the subject projects.

In the spring of 1971 when the vinyl paint pinholing and bubbling problem became wide-spread, we hired the West Fremont painting subcontractor under Extra Work Order No. 13 to experiment with different types and brands of vinyl products in an attempt to find a satisfactory topcoating material. As a result of this experimental work, we found that in general the vinyl paint manufactured by the Carbolene Company produced a surface with fewer bubbles and pinholes than the Enjay vinyl. For this reason the specifications were modified to allow the use of Carbolene vinyl and the Contractor was encouraged to make the change. Subsequently, price agreements were submitted for Units A and B of the East Fremont Interchange to compensate the Contractor for the cost differential between the Carbolene and Enjay paints. This cost differential was calculated by subtracting the invoice price of each brand of paint.

The change to Carbolene vinyl was made in order to get the best topcoat material available. The change was necessary because the contract specifications did not go far enough in calling out the requirements to get such a product. The Carbolene vinyl as compared to the Enjay vinyl is a superior product as evidenced by the following.

1. Carbolene vinyl has a higher solids content. This means that there is less solvents to be evaporated out of the wet film, thus decreasing the tendancy for the paint to bubble and pinhole as it is drying. The specifications required only a minimum solids content.

2. The Carbolene vinyl has a different solvent makeup as compared to the Enjay vinyl. The Carbolene solvents are essentially the aromatic type as compared to the ketones used by Enjay. aromatic solvents by nature are slower to evaporate which allows the solvents to escape from the paint film before the surface film sets up which results in less pinholing and bubbling. The specifications were silent with respect to the type of solvent used.

PNW gave Herb Schell a copy of this 6-21-72 for his review together with Christiansen & Walach, who won't be in until 6-28-72.

RECEIVED
JUN 19 1972
BRIDGE DIVISION

NOTED
R. W. ELLISON

3. Carbolene vinyl uses different pigments as compared to the Enjay vinyl. Carbolene's mineral pigments are a higher quality and more expensive than those used by Enjay and they are more color-fast and less apt to show discoloration. Enjay uses an organic toner to produce the green paint specified which is not as stable as the mineral pigments. The Enjay vinyl that was used on the Fremont projects showed a tendency to discolor and by changing to Carbolene vinyl the State very likely avoided a large problem due to the discoloration tendency. It is possible that some of this discoloration wouldn't have been apparent until after the project was accepted resulting in an unsatisfactory appearing paint job. The specifications were silent with respect to the type of pigmentation used.

With respect to the cost of the vinyl color change the price quoted of $1.26 per gallon for the change to Carbolene vinyl would be constant regardless of the color of the Carbolene vinyl. Their pricing structure is such that the paint price is the same regardless of color. It was my understanding that if we had changed the color of the Enjay vinyl from "Highway Green" to "Celadon Green" there would have been a price increase.

Our painting experience subsequent to the change to Carbolene vinyl has indicated that this was a prudent decision. Although we have not yet gotten into the hot weather conditions, the Carbolene vinyl being applied on both West and East Fremont projects is producing an acceptable topcoat with very little pinholing and bubbling.

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

cc: John Howard
R. E. Shotwell
J. E. Chidsey
R. O. Cunningham

RECEIVED
JUN 19 1972
BRIDGE DIVISION

RECEIVED
JUN 2 - 1972
FOR FILING
7310

Salem, Oregon
June 1, 1972

Mr. Walt Hart
Bridge Engineer

East Fremont Interchange
Units A and B
Contracts 7310 and 7311

Attached are Price Agreements 13 and 14 for Unit A and Price Agreement 14 for Unit B for the subject project and a copy of a letter from Mr. R. E. Simpson of the Federal Highway Administration returning the price agreements without approval. Mr. Simpson states that the supporting data does not indicate that the product could not be made to meet the contract specifications.

Would you please contact the Metropolitan Region Office to determine if they can furnish supporting data that would justify participation by the Federal Highway Administration.

As I recall, the Enjay vinyl product was so altered by solvent in order to be applied that it could not meet the specifications, and this may be the clue.

A. E. Johnson
Assistant State Highway Engineer

AEJ:ja

Attachments

cc Tom Edwards
F. B. Klaboe
L. H. Young

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: May 15, 1972

In reply refer to: 10-35-DA

FROM Mr. R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(22)304
and I-405-8(23)304
East Fremont Interchange Section
Units A and B
Stadium Freeway

Price agreements Number 14 on contracts No. 7310 and 7311 have been reviewed. These agreements were forwarded under Mr. Asbury's cover memorandum dated April 27, 1972.

The support data does not indicate that the Enjay product could not be made to meet the contract specifications. It is indicated that the Carbolene product would achieve the desired results with more ease than Enjay and Price Agreement No. 13 allowed such a substitution. We can not agree that this substitution warrants additional payment. There also is no conclusive indication that the contract specifications were deficient on this item.

FHWA personnel agreed with the color change, and indicated approval, with the understanding that there would be very little, if any, increase in cost. While we agree that the new color is more pleasing, the additional cost has not been supported.

Both price agreements are herewith returned without FHWA approval. Both orders can be approved on a non-participating basis if they are recoded as such.

Enclosure
Price Agreement No. 14

5-17-72

NOTED
TOM EDWARDS

RECEIVED
MAY 16 1972
OFFICE OF
STATE HIGHWAY ENGINEER

Asbury

RECEIVED
MAY 16 1972
PROGRAMING SECTION

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 917-344

RECEIVED
MAY 30 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE May 26, 1972

TO R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Federal-aid Project
No. I-405-8(22)304

FROM George M. Baldwin
Administrator of Highways
ORIGINAL SIGNED BY
by R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT **Request; Change Order Approval**

Contract 7310, Extra Work Order No. 13

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

This Order covers the cost of installing two steel guard posts to protect the electrical distribution cabinets mounted on pier 13 column. The location of the column is such that the cabinets could be struck by truck traffic using the area if they are not protected. Protection of the cabinets was provided as an extra work item on the contract plans, drawing 25318.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer, May 10, 1972.

Your approval as of May 10, 1972 is requested.

LHW:bb

Attachments

RECEIVED
MAY 30 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

7310

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE May 26, 1972

TO R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Federal-aid Project
No. I-405-8(22)304

FROM George M. Baldwin
Administrator of Highways
ORIGINAL SIGNED BY
by R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT **Request: Change Order Approval**

Contract 7310, Extra Work Order No. 14

Project East Fremont Interchange, Unit A

Highway Stadium Freeway

County Multnomah

In accordance with Federal Highway Administration's Instructional Memorandum 40-2-70, a linseed oil deck sealant will be applied to all concrete deck surfaces of the structures. This work is necessary to protect the roadway surfaces from the effects of deicing salts.

This work was tentatively recommended for approval by the Federal Highway Administration Division Bridge Engineer, June 9, 1971.

Your approval as of June 9, 1971 is requested.

BMW:bb

Attachments

RECEIVED
MAY 17 1972
FOR FILING
STATE OF OREGON
1859
7310

OREGON STATE
HIGHWAY DIVISION
METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

May 16, 1972

Union Pacific Railroad Company
P. O. Box 8979
Portland, Oregon 97208

ATTENTION: R. B. Hardin

Re: East Fremont Interchange
Contract No. 7310

Gentlemen:

Your letter of March 2, 1972 addressed to Mr. Robert Shotwell, Resident Engineer on the East Fremont Interchange project, transmitted your drawing showing a proposed layout for flood lights for your Albina yard under the East Fremont Interchange. It had previously been agreed that the State would provide some form of yard lighting if the bridge construction made it necessary.

In order to support the need for this yard lighting, on May 3, illumination level readings were taken in your yard area during the hours of darkness. Attached you will find a plan showing the locations of these readings and a tabulation of them. This data indicates that the light levels are so low that the presence of the bridge ramps has no appreciable effect on the lighting of your yard. For this reason, we are holding your request for yard lighting in abeyance until the illumination system on the bridge ramps is installed and operational. At that time we will reassess the nighttime lighting and shadows of your yard under these ramps and make a final determination regarding the necessity of additional yard lighting.

H. S. Coulter
Metropolitan Engineer

NOTED
A. E. JOHNSON

By:

ORIGINAL SIGNED BY EDWARD L. HARDT

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
bcc: Jack Sollis
A. E. Johnson w/attach.
Walt Hart w/attach.
T.W. Litchfield
R.E. Shotwell

RECEIVED
MAY 17 1972
OFFICE OF
STATE HIGHWAY ENGINEER

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

P.O. Box 8979
PORTLAND, OREGON
97208

METROPOLITAN ENGINEER

MARCH 2, 1972

RECEIVED
MAR 7 - 1972
ME AME AME MOE MDE MTE

File Reference:
D 9010 - 32 - 17

Mr. Robert Shotwell,
Resident Bridge Engineer
Oregon State Highway Division
1101 N. Russell Street
Portland, Oregon 97227

cc:
Mr. Edward L. Hardt,
Metropolitan Bridge Engineer
Oregon State Highway Division
5821 N. E. Glisan St.
Portland, Oregon 97213

Dear Sir:

Herewith is copy of Railroad Dwg. No. D-5009-1 dated Feb. 28, 1972 showing a proposed layout for floodlights, necessary to provide illumination of our Albina Yard under the East Fremont Bridge Approach Ramps.

It is my understanding that Mr. Tom Edwards, State Highway Engineer and Mr. Jack L. Sollis, Asst. Attorney General for the State Highway Division, have agreed that installation and maintenance of the necessary lighting system will be done by the State or its Contractor.

The plan illustrated on the attached drawing could of course be modified or completely changed so long as an equivalent amount of illumination is provided. Although the drawing indicates that service would be available from the transformer rack west of our Maintenance of Way Building, it would be preferable that service be obtained from the ramp lighting circuits necessary to provide roadway illumination.

Will you kindly contact this office if additional information is required.

One copy of the enclosed drawing is also being furnished to Messrs. Litchfield and Hardt.

Very truly yours,

Original signed for
R. B. Hardin
Superintendent

R. B. Hardin,
Superintendent

METROPOLITAN ENGINEER
RECEIVED
MAY 1 - 1972
ME AME AME MOE MDE MTE

cc:
Mr. T. W. Litchfield,
Railroad and Utility Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

ILLUMINATION LEVELS
EAST FREMONT INTERCHANGE
UNION PACIFIC RAIL YARD
May 3, 1972
10:00 P.M. to 12:15 A.M. PDT
(All readings taken with a G. E. SL-480A Meter)

Point No.	Horizontal Footcandle	Remarks
1	0.050	
2	0.050	
3	0.080	
4	0.060	
5	0.070	
6	0.070	
7	0.125	
8	0.250	Street light directly across Russell St.
9	0.100	
10	0.070	
11	0.070	
12	0.040	
13	0.070	
14	0.060	
15	0.075	
16	0.055	This point in shadow cast by Pier No. 11
16A	0.070	This point in "out of shadow" 10' N.W. of point no. 16
17	0.080	
18	0.060	
19	0.070	
20	0.070	
21	0.130	Interstate Ave. Street Lighting contributing
22	0.060	
23	0.110	Interstate Ave. Street Lighting contributing
24	0.080	Contribution from building interior lighting
25	0.090	" " " " "
26	1.340	Interstate Ave. Street Lighting
27	0.100	Interstate Ave. Street Lighting contributing
28	0.110	" " " " "
29	0.100	" " " " "
30	0.100	" " " " "
31	0.250	Contribution from building interior lighting

Representative Levels:
Moonlight 0.02 fc
Starlight 0.0002 fc

Estimated spill light from E. Fremont upper deck light units - 0.040 average maintained footcandles in an area paralleling the structure and extending outward from a line starting 40 feet out from directly beneath the structure and outward 60 feet.

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

FOR [illegible]
7310

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: May 15, 1972

In reply refer to: 10-35-DA

FROM : Mr. R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(22)304
and I-405-8(23)304
East Fremont Interchange Section
Units A and B
Stadium Freeway

Price agreements Number 14 on contracts No. 7310 and 7311 have been reviewed. These agreements were forwarded under Mr. Asbury's cover memorandum dated April 27, 1972.

The support data does not indicate that the Enjay product could not be made to meet the contract specifications. It is indicated that the Carbolene product would achieve the desired results with more ease than Enjay and Price Agreement No. 13 allowed such a substitution. We can not agree that this substitution warrants additional payment. There also is no conclusive indication that the contract specifications were deficient on this item.

FHWA personnel agreed with the color change, and indicated approval, with the understanding that there would be very little, if any, increase in cost. While we agree that the new color is more pleasing, the additional cost has not been supported.

Both price agreements are herewith returned without FHWA approval. Both orders can be approved on a non-participating basis if they are recoded as such.

Enclosure
Price Agreement No. 14

5-17-72

NOTED
TOM EDMONDS

RECEIVED
MAY 16 1972
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 917-344

RECEIVED
MAY 8 - 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE May 5, 1972

TO Mr. H. S. Coulter
Metropolitan Engineer
M E T R O

7310

FROM ORIGINAL SIGNED
WALTER J. HART
Walter J. Hart
Bridge Engineer

NOTED
A. E. JOHNSON

SUBJECT East Fremont Interchange
Stadium Freeway
Multnomah County
Contracts 7310, 7311, 7312
Illumination of Railroad Yard

As you requested, we have taken illumination readings in the Union Pacific rail yard at the East Fremont Interchange site. Attached are five copies of drawing 25303, showing the points where readings were taken and a xerox listing of illumination levels at these various points.

From the low light levels observed it does not appear that we are causing any objectionable or hazardous shadows at the present. With the addition of roadway lighting on the structure, we will only be adding an average of 0.040 footcandles which should still not cause any problems.

If we do add lighting under the structures, it would appear that it should be done with underground wiring and light poles or underground wiring with conduit up the columns to lights attached to the columns.

Since either of the above methods could be done at any time, and at the present it doesn't appear that lighting is warranted, we would suggest that a wait-and-see attitude be taken. If this information is sufficient to convince the Railroad that lighting is not needed, so much the better.

DOC:dh
Attachments

cc A. E. Johnson
T. W. Litchfield

RECEIVED
MAY 5 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 12 1972
FOR FILING

7310

Tom Edwards

Bridge
Coulter
Cunningham
5-10-72

NOTES -- MEETING WITH KEN PETERSON
May 3, 1972 -- Seattle, Washington

The following are statements made by Ken Peterson respecting Canron's painting of steel with the inorganic zinc primer:

1. Terry Lowery is no longer with Canron. He left following completion of job for the Fremont Bridge.

2. Canron had painting problems involving peeling; the paint not adhering; and this would be at different areas, particularly on the inside of the girders (box), where they were painting with improper lighting.

3. Many changes were made after consultation with their supplier and manufacturer. The accelerator they used was put on at 1 gal. for 400 sq. ft. of coverage. The accellerator was used on the 193 paint.

4. I sat down with them many times. The painters put the paint on and never used a wet gauge to determine the millage.

5. State should review EN Jay's procedure proposals respecting the use of the accelerator, because it was applied in heavy quantities, it was running off the beams after application. They even mixed water with it at one time.

6. One thing that was outstanding was the variation in pot pressures adopted by the various applicator's (painters). Sometimes 10psi and at other times 20psi. Sometimes the pots had no gauges to indicate the psi.

7. The atomizing pressure varied from 40 to 50psi, depending on the individual paimters, many of whom used a sweeping method of application. Air agitators were used.

8. Canron was constantly changing applicators.

NOTED
TOM EDWARDS

9. EN Jay recommended certain nozzle and pot pressure.

10. It was important that a wet application be had.

NOTED
A. L. JOHNSON

11. Elevation of the pot was not consistent. Change of pot location from high to on-ground took place without any change of psi. I called this to the attention of Canron, their answer was that the mechanics knew what they were doing.

12. Although they had agreed that the drying of the paint would be 9? hours, they would often put on the accelerator in a matter of minutes and then push the beams into the atmosphere. (Peterson said this is all covered in his weekly reports)

13. They did much experimentation. They even tried the accelerator on the 191 paint.

14. In the early stages they had no quality control, Supt. John Wolf was in charge and he made his foreman the quality control man.

15. Peterson complained of no proper quality control, eventually changed procedures in January, 1971--and then got quality control.

16. No applicator carried wet guages (specs call for this). No set pattern of painting used. I tried to get them to adopt a painting pattern, but had no luck with this.

17. My pattern of checking was to test through the paint line. I checked wet and dry.

18. They first blasted, then I checked. Then they would blow off dust and move into the paint room. They then painted the member; we tried to check as they went along.

19. His personal feeling was that Canron (front office) worked hard to do a good job.

Doesn't think EN Jay worked with them as they should have.

L. I. Lindas
Assistant Attorney General
and Counsel to Highway Division

LIL:sd

RECEIVED
MAY 8 1972
OFFICE OF
STATE HIGHWAY ENGINEER

Gen. Files

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE April 24, 1972

7310

TO Mr. H. S. Coulter
Metrpolitan Engineer

Attention Mr. Edward L. Hardt
Metro Bridge Const. Engineer

FROM ORIGINAL SIGNED
WALTER J. HART

Walter J. Hart
Bridge Engineer

SUBJECT Grade Adjustments at Expansion Joints
East and West Fremont Interchanges
Contracts 7214, 7310 and 7311

This will confirm our discussion of April 18, 1972, on responsibility for adjustments to obtain matching grades at the expansion joints on the East and West Fremont Interchanges. It is my belief that the adjustments which have been necessary are plan changes and that the State is responsible for the costs of those changes. This responsibility should apply equally to both the East and West Fremont contracts.

It is our opinion that the dimensional tolerances called for on the contract plans do not reflect reality in this type of structure. The Federal Highway Administration concurs in this opinion. They have indicated they will participate in the costs of the deck build-up or expansion joint revision. A copy of the half slips documenting their acknowledgement of this responsibility is attached.

Price agreements should be prepared for each of the effected contracts to cover the plan changes in either deck build-up or expansion joint revision.

WJH:dh
Attachment

cc A. E. Johnson
H. A. Schell, Jr., FHWA

NOTED
A. E. JOHNSON

RECEIVED
APR 29 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 21 1972

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

7310

DATE April 19, 1972

TO Mr. Vernon E. Skoog
Controller
Accounting Section
B U I L D I N G
Attention: Mr. Paul Hatcher

FROM Walter J. Hart
Bridge Engineer

SUBJECT East Fremont Interchange
Contracts 7310 and 7311
Inspection Agreement with
Pittsburgh Testing Laboratory

Attached are final approved Invoices Nos. 62422 and 7075 for work done by Pittsburgh Testing Laboratory in conjunction with the inspection of structural steel on the above project. All work under this agreement, including submittal of required reports, has been accomplished in a manner satisfactory to the State.

Also attached is a copy of the letter that amended the agreement to revise the unit price so that a total payment of $201,592.50 could be made based on 12,448.4 tons as shown in the contract special provisions.

RJW/ag

Attachs.

cc A. E. Johnson
Ed Hardt
R. Shotwell
J. Jenkins

NOTED
A. E. JOHNSON

RECEIVED
APR 19 1972
OFFICE OF
STATE HIGHWAY ENGINEER

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

RECEIVED
MAR 28 1972
FOR ...

7310

DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

March 22, 1972

Gen. Files

TRIAL DIVISION

THOMAS D. O'DELL
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS
JAMES P. CRONAN, JR.
QUINTIN B. ESTELL
LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN R. McCULLOCH
FRANK G. McKINNEY
EARL M. PRESTON
R. KEN ROBERTS
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA N. SORENSEN
ASSISTANT ATTORNEYS GENERAL

Mr. Edward L. Hardt
Asst. Metropolitan Engineer
P.O. Box 13160
Portland, OR 97213

M. Bridge Constr. 3-28-72

Re: E. Fremont Interchange, Units A & B
Contracts 7310 and 7311; Price Agreement Stipulation

Dear Ed:

This is to confirm our phone conversation of this date. I talked with George Mead, counsel for Drake-Willamette respecting P.A. 14(A), and our objections to the contractor's reference therein to their letter to Robert E. Shotwell of November 17, 1971.

Mr. Mead is agreeable to his clients signing the P.A. with language which states simply that in signing the P.A. the contractor does so without waiver of his rights to present a claim. I have no objection to such wording.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas
Assistant Attorney General
and Counsel to Highway
Division

LIL:mjg
cc: A. E. Johnson
Robert Shotwell

RECEIVED
MAR 24 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

RECEIVED
MAR 28 1972
FLOW FILING

7310

Gen. Files

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
March 20, 1972

NOTED
A. E. JOHNSON

To: Leonard Kindas
Chief Counsel
State Highway Building
Salem

SUBJECT: East Fremont Interchange
Units A & B
Contracts 7310 & 7311
Price Agreement Stipulation

Attached you will find a copy of Price Agreement No. 14 for the East Fremont Interchange and a copy of a letter dated November 17, from Drake-Willamette, Contractor on this project. The Price Agreement was made out and signed by our Resident Engineer and forwarded to the Contractor for his signature. When it was returned, it carried the notation that it was signed subject to the stipulation carried in the November 17, letter. This is the Price Agreement and the stipulation which we have objected to and which has been the subject of discussions between you and Mr. George Mead, the Contractor's Attorney. It develops that there were two letters dated November 17, from the Contractor and when I spoke to you last Friday about this problem, I did not have the proper letter in front of me.

The intent of this Price Agreement is to allow a change from Enjay Vinyl to Carbolene Vinyl. Thisiis contrary to the specifications hence the Price Agreement to allow the specification change. The change is at the request of the Highway Division and we have no objection to the Contractor's disclaimer of any responsibility for the compatability of the Carbolene Vinyl to the Enjay inorganic zinc primer. We do object to the stipulation that the Contractor is reserving the right for "consequential" costs for performance arising from changes ordered. It's our opinion that a Price Agreement with this type of stipulation really is not an agreement as it is open ended with respect to payment to the Contractor.

Please review this Price Agreement and in particular the Contractor's stipulation thereto and advise if you have any objections to processing such an agreement. Al Johnson is somewhat familiar with this situation and may have some thoughts on the matter.

RECEIVED
MAR 21 1972
OFFICE OF
STATE HIGHWAY ENGINEER

H. S. Coulter
Metropolitan Engineer
By:

ORIGINAL SIGNED BY EDWARD L. HARDT

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
Encs
cc: A. E. Johnson
Robert Shotwell

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97206

AMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS
1201 N. Loring Street
Portland, Oregon 97227

November 17, 1971

RECEIVED
NOV 1 9 1971
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

Oregon State Highway Department
Metropolitan Engineer
1101 N. Russell Street
Portland, Oregon 97227

Attention: Mr. Robert E. Shotwell, Resident Engineer

Reference: East Fremont Interchange
O.S.H.D. Contract Nos. 7310 & 7311
Vinyl Paint Price Agreements

Gentlemen:

Returned herewith are:

1) Six (6) signed copies of Price Agreement No. 14(A), for Contract No. 7310, and
2) Six (6) signed copies of Price Agreement No. 14(B), for Contract No. 7311, covering color, paint manufacture and increase in cost of vinyl paint to be used on the structural steel painting work at the subject project.

Selection of the supplier listed in referenced Price Agreements is a result of tests and information supplied by the Oregon State Highway Department and is for the intent of providing more satisfactory results as stated. The Contractor does not accept or imply that this product will meet all the requirements of the specifications and further accepts no responsibility for compatability of this product with the previously applied inorganic zinc prime coat.

The Price Agreements returned herewith have been signed subject to the General Contractor's right to payment of consequential cost and extension of time for performance arising from changes ordered or mentioned herein. Such consequential amounts of cost or periods of time shall be presented to the Owner as soon as they can be determined.

Please be advised that it is our intent to exercise our right to claim for overhead and profit, which was denied to us in our negotiation of this increase.

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

AMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

Mr. Robert E. Shotwell
Oregon State Highway Dept.
Re: East Fremont Interchange

November 17, 1971
Page 2

Please forward the enclosed Price Agreements for further execution, and return one (1) fully executed copy of each to this office for the job files.

Very truly yours,

DRAKE-WILLAMETTE,
JOINT VENTURERS

John R. Gray, Project Manager

JRG:br
Encls.

OREGON STATE HIGHWAY DEPARTMENT

Price Agreement

APPLYING TO EXTRA WORK AND EXTRA MATERIAL

Project Name East Fremont Interchange Unit A — Date October 29, 19 71

Highway Stadium Freeway — Contract No. 7310

County Multnomah — Prefix 626-1017

Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304

Address 1201 North Loring St., Portland, Oregon 97227 — Price Agreement No. 14 (A)

For the below described extra work or extra material to be performed or furnished under the contract above referred to, the contractor agrees to accept payment at the prices given herein, understanding that, except as herein otherwise provided, the work is to be performed and the material is to be furnished in accordance with the specifications which form a part of the contract and in accordance with the instructions of the engineer.

Work to be done:

Change color and supplier of vinyl paint from Enjay VH5537 Highway Green to Carbolene Polyclad No. 936-1 Celadon Green.

Locations by station numbers:

Throughout Project.

Names of pay items, estimated quantities and agreed prices:

Change from Enjay Vinyl to Carbolene Vinyl

Price . . . $1.26 / gal. by 12,320 gal. (estimated) = $15,523.20 Estimated Total Cost.

Specifications, basis of measurement and other provisions: State agrees to pay difference in cost of paint in order to change color and obtain more satisfactory results. Price is based on difference in invoices with no allowance for overhead and profit. Contractor does not waive the right by signing this agreement to present a claim for this overhead and profit if so desired. Payment will be based on invoices which will be verified by field tally of paint used. Work has started.

INSTRUCTIONS

After the signature of the contractor has been obtained, submit six copies (including original copy) to the Salem Office. After approval by the Assistant State Highway Engineer, approved copies will be sent to the Contractor, the Division Engineer, and the Resident Engineer.

This order does not constitute authority for expenditure until approved by the Assistant State Highway Engineer or State Highway Engineer.

Project authorization	$ 13,928,737.75
Present estimate of project cost, including $15,523.20 for work under this order	$ 14,078,610.05
Expected ~~XXXXXX~~ over-run (amount)	$ 149,872.30
Expected ~~XXXXXX~~ over-run (per cent)	1.075

Space to right of this line is for use of Salem Office

Submitted by: ..... Resident Engineer

Approval Recommended: ..... Division Engineer

Approval Recommended: ..... Construction Engineer or Bridge Engineer

State Printing

***
Signed ..... Drake-Willamette, Joint Venturers Contractor
R. E. Grant, Attorney-In-Fact

Approved: ..... Deputy State Highway Engineer, Assistant State Highway Engineer or Office Engineer.

***Signed subject to the conditions stipulated in our transmittal letter dated Nov. 17, 1971.

RECEIVED
MAR 20 1972
FOR FILING

7310

March 17, 1972

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, Oregon 97308

62

Dear Mr. Simpson:

This will acknowledge your letter of March 6 concerning signing on the Stadium Freeway, the Fremont Bridge and its interchanges.

Representatives of our Traffic Engineering Section will be available to discuss this with representatives of your office at 1:30 P.M. on March 28.

Please advise if this time is not satisfactory.

Very truly yours,

George M. Baldwin
Administrator of Highways

By

R. L. Schroeder
Assistant State Highway Engineer

VPJ:sv jf

bc: Tom Edwards
F. B. Klaboe
L. E. George

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: March 6, 1972

In reply refer to: 10--35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(17)303 Fremont Superstructure
I-405-8(20)303 West Fremont Interchange
I-405-8(22-24)304 East Fremont Interchange
Stadium Freeway Signing

Several signs on the subject projects are substandard regarding the location of route shields and cardinal direction in accordance with the provisions of the Manual on Uniform Traffic Control Devices. These deficiencies existed under the old manual as well as under the current issue. The signs containing deficient route shield placement are as follows:

West Fremont
Signs No. 8, 9, 10, 11, 12, 13, 16 & 17
East Fremont (Unit "A")
Signs No. 16, 17, 31 & 32
East Fremont (Unit "C")
Signs No. 2, 4 & 5
Fremont Superstructure
Signs No. 1, 2, 4 & 5

Initially some of these signs did not contain a route shield and our memorandum to Mr. Cooper dated February 20, 1969, documented the Federal Highway position in that regard. The reply dated March 5, 1969, indicated that route shields would be added and stated the reasoning used in the initial design. The route shields were then added to the bottom of the signs below the legend with the evident intent to avoid increasing the height of the signs. The results contain significant deficiencies.

We would like to discuss with your engineers at an early date these revisions which can be made in the signing on these projects to conform more appropriately with the UMTCD and other signing in the area. Please advise of a convenient meeting time.

3-10-72
REFERRED TO
BY DEPUTY STATE HIGHWAY ENGINEER

RECEIVED
MAR 7 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
TOM EDWARDS

MAR 13 1972

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

NOTED
R. L. SCHROEDER
TRAFFIC ENGINEER G

GPO 917-344

Gen. Files

RECEIVED
MAR 1 1972
FOR FILING

7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
March 6, 1972

SUBJECT: East and West Fremont Intchs.
Paint Claim

To:

Mr. Edward L. Hardt
Mr. A. A. Rear
Mr. Ed. J. Rief
Mr. Robert Shotwell
Mr. John Howard

Our Chief Counsel, Mr. Leonard I. Lindas, has requested a meeting of Oregon State Highway Division personnel regarding the subject paint claim.

The document, "Analysis of Primer Rust Problems" by Canron, Ltd., was received recently and distributed to those addressed above except Messrs. Hardt, Shotwell and Howard. Copies for them are attached.

The requested meeting will be on March 28 at 9:30 a.m. in the Bridge Engineer's office in Salem. Please attend and be prepared to discuss the problem as well as the document by Canron, Ltd.

R. W. Ellison
Bridge Administration Engineer

RWE:dh
Attachments

cc A. E. Johnson
L. I. Lindas

RECEIVED
MAR 6 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

RECEIVED
MAR 10 1972
FOR FILING

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

7310

DATE: March 6, 1972

In reply refer to: 10-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(17)303 Fremont Superstructure
I-405-8(20)303 West Fremont Interchange
I-405-8(22-24)304 East Fremont Interchange
Stadium Freeway Signing

Several signs on the subject projects are substandard regarding the location of route shields and cardinal direction in accordance with the provisions of the Manual on Uniform Traffic Control Devices. These deficiencies existed under the old manual as well as under the current issue. The signs containing deficient route shield placement are as follows:

West Fremont
Signs No. 8, 9, 10, 11, 12, 13, 16 & 17
East Fremont (Unit "A")
Signs No. 16, 17, 31 & 32
East Fremont (Unit "C")
Signs No. 2, 4 & 5
Fremont Superstructure
Signs No. 1, 2, 4 & 5

Initially some of these signs did not contain a route shield and our memorandum to Mr. Cooper dated February 20, 1969, documented the Federal Highway position in that regard. The reply dated March 5, 1969, indicated that route shields would be added and stated the reasoning used in the initial design. The route shields were then added to the bottom of the signs below the legend with the evident intent to avoid increasing the height of the signs. The results contain significant deficiencies.

We would like to discuss with your engineers at an early date these revisions which can be made in the signing on these projects to conform more appropriately with the UMTCD and other signing in the area. Please advise of a convenient meeting time.

3-10-72
REFERRED TO
BY DEPUTY STATE HIGHWAY ENGINEER

RECEIVED
MAR 7 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
JGM

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 917-344

RECEIVED
MAR 7 - 1972
FOR FILING

Gen Files

Portland, Oregon 97227
February 28, 1972

RE: Paint
East Fremont Interchange
Units A & B
Contract No's. 7310, 7311
Bridge No's. 8958-1, -2
Prefix No's. 626-1017, -1018
F.A.P. No's. I-405-8(22,23)304

MEMO TO FILES

The question has been raised by Canron Limited as to the possibility of a corrosive atmosphere in the Portland area being detrimental to the zinc paint system.

I met with Al Burkitt with the Air Quality Division of the Department of Environmental Quality. Mr. Burkitt's opinion was that there is no contaminant in the air in the vicinity of the structure that could possibly cause paint damage. I asked Mr. Burkitt if the proximity of Galvanizing plants to the structure could cause problems. His opinion was that the small quantities of sulphuric acid they use in their pickling process would not emit enough sulfurous acid to cause a problem.

I mentioned that the steel was painted and stored at Vancouver B.C. He said that due to considerable handling of bulk sulphur and plants in this area, the contamination in Vancouver should be investigated.

I also talked with Tom Bisphan with C.W.P.A. (Columbia-Willamette Pollution Authority). They took an air sample in the vicinity of the West Fremont Interchange on February 2, 1972. At this time the SO_2 content was .06 ppm or in his words practically none. He could think of no other contaminants that could cause injury to paint. I asked him of the possibility of contamination from pulp mills in the area. He stated that they were so far removed from the site that any pollutants would be well dispersed and be no problem. He felt that if there were enough pollutants in the area to cause problems with our paint that they would have received many complaints from people claiming damage to car paint and house paint.

It is my intention to contact Mr. Bisphan again and attempt to arrange for an air sampling on the structure.

Robert E. Shotwell
Resident Bridge Engineer

RES:def

CC: A.E. Johnson
L. Lindas
Walter J. Hart
H.S. Coulter
Jim Chidsey

RECEIVED
MAR 3 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

RECEIVED
FEB 23 1972
FOR FILING

I-405-1(5)Acc
7310

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIV.
DEPARTMENT OF OPERATION
P. O. Box 8979
Portland, Oregon 97208

February 18, 1972
File: D 9010-32-17

Drake-Willamette, Jt. Venturers
1201 N. Loring Street
Portland, Oregon 97227

Attention: Mr. Donald B. Kane

Gentlemen:

Lloyd's Certificates No. L-78073 and L-78074, each providing railroad protective liability and property damage coverage on behalf of the railroads with respect to your operations for the State in constructing the East Fremont interchange units A and B will terminate March 22, 1972.

Will you please furnish evidence of extension of these expiring coverages since it is evident that your operations will not have been completed prior to March 22, 1972.

Yours very truly,

Original signed for
R. B. Hardin
Superintendent

NOTED
A. E. JOHNSON

R. B. Hardin
Superintendent

cc: Miller & Ames - Foragren
729 S. W. Alder St.
Portland, Oregon 97205

NOTED
TOM EDWARDS

Mr. George M. Baldwin
Administrator of Highways
Highway Building
Salem, Oregon 97310

RECEIVED
FEB 23 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
FEB 22 1972
FOR FILING

Gen. Files

I-405-1(22)304
7310

Portland, Oregon 97227
February 17, 1972

cy Memo 2-22-72

RE: Rustbond 6C Vinyl Primer
East Fremont Interchange Unit A
Contract No. 7310
Bridge NO. 8958-1
Prefix No. 626-1017
F.A.P. No. I-405-8(22)304

MEMO TO THE FILE.

On the afternoon of Feb. 9, 1972 our painting sub-contractor coated the cadmium plated bolts of one large splice plate and about 30 small connections with Rustbond 6C. the steel temp. was 40° to 45°, the air temp. was 55° and the relative humidity was 55 %. Somewhat less than one (1) qt. per gal. (the maximum recommended by the manufacture) of Carboline thinner # 25 was used. The nuts only, had been washed with mineral spirits to remove beeswax.

We checked the coating on Feb. 10 and again on Feb. 14 and f found very poor adhesion between the cadmium and the Rustbond 6C. The bond seems to be the same where we used meneral spirits and where we didn't. Where the rustbond 6C oversprayed on zinc primer the bond is very good. The coating is one to two mils thick, and with very little pressure of a fingernail can be "flaked" off. It appears to be cured out and is hard and brittle.

RECEIVED
FEB 22 1972
OF
STATE HIG ENGINEER

Robert E. Shotwell
Resident Bridge Engineer

By Charles Lobaugh
Charles Lobaugh
Ass't. Res. Br. Engr.

CL:def

CC: H.S. Coulter ✓
W.J. Hart
J.C. Jenkins

METROPOLITAN ENGINEER
RECEIVED
FEB 17 1972
ME AME ARE MCE MDE MTE

REFERRED TO
A E Johnson & John Howard
Date: 2-18-72 By: HART
For: Your information
Due Date:

NOTED
A. E. JOHNSON

RECEIVED
FEB 16 1972
FOR FILING

I-405-8(22) 304
7310

February 15, 1972

Oregon State Highway Commission

490

Gentlemen:

Contracts 7310, 7311 and 7312
Request for Extension of Time
No. 5
February 22, 1972 Meeting

Drake-Willamette, Joint Venturers, contractor for the construction of the East Fremont Interchange on the Stadium Freeway (I-405) in Multnomah County, has requested that it be granted additional calendar days in which to complete the contract work without assessment of liquidated damages.

To generate competitive bidding, this work was advertised in three sections -- Unit A, Unit B, and Unit C. Drake-Willamette was the successful bidder on all three units, and has pursued it as one project.

All three of the above contracts were awarded September 11, 1969 and had a completion date of October 21, 1971. Unit A is now 92 percent complete and will govern the overall project completion. A shutdown order has been in effect, since the remaining work to be done (steel painting and concrete deck placement) is dependent upon favorable weather.

Short-term strikes, some necessary fabrication revisions, a request from the Federal level for deck sealing, and painting delays have been encountered. This is a Federal-aid project and thus far, we have the concurrence of the Federal Highway Administration for a time extension of 210 days, which covers unforeseen delays to the contractor due to strikes and steel ring revisions.

I recommend that the contractor be granted a 210-day extension of time without assessment of liquidated

damages. This is an interim extension of time, and it is expected that additional time due to other delays will be requested by the contractor at a later date.

This matter will be on the agenda for your consideration at the February 22 meeting.

Very truly yours,

George M. Baldwin
Administrator of Highways

By

Tom Edwards
State Highway Engineer

bc Floyd Query (enc.)
George M. Baldwin
F. B. Klaboe (enc.)
A. E. Johnson "
Walter J. Hart
F. D. Morgan
V. E. Skoog
L. H. Young
Gary Ross
Gary Sund
L. W. Rulien

RJW:ag/TE:ja

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: February 1, 1972

In reply refer to: 10-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
Contracts 7310, 7311 and 7312
Extension of Contract Time

Mr. Johnson, by letter dated January 25, has requested concurrence in a proposed 377-day extension of contract time. In order to avoid unnecessary complications in contract administration, and because of the current status of work on all three contracts, I agree that time delays on Unit "A" have a direct bearing on the other units. For this reason I concur in your proposal to treat the three contracts as one for time accounting purposes.

The data submitted in Mr. Johnson's letter includes time extensions for Extra Work Order No. 9 and change orders covering deck seal work, which has not yet been done. I take this opportunity to remind you that time could have been agreed upon at the time prices were negotiated and made a part of the approved orders. I suggest that you review current time administration procedures with this in mind.

I concur in the proposed time extension with the exception of Item 6 in your letter. The problems mentioned with zinc primer repairs and paint difficulties are not resolved as to responsibility. Consideration of time in connection with zinc and paint problems should be a part of the total analysis on that item.

Your support data covers a total of 439 days but the proposed extension is 377 days. I assume that the difference represents overlap of delay time. Excluding the painting delays, Item 6, from the recommended 377 day extension results in 210 days. For Federal participation purposes a 210-day extension is approved. I understand that there may be other factors that would warrant further consideration at a later date.

2-Y-72
REFERRED TO

NOTED
F. B. KLABOE

RECEIVED
FEB 3 1972
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

7310

STATE COPY G-1P G-1N (Materials $2,087.60) EFFECTIVE DATE 12-20-71

Form E-900—814

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Dist. Engineer

3-20-72

Project Name East Fremont Interchange Unit A — Date February 9, 19 72

Highway Stadium Freeway — Contract No. 7310 —

County Multnomah — Prefix 626-1017 —

Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304 —

Address 1201 North Loring Street, Portland, Oregon 97227 Order No. 12 —

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Jack and Grout Masonry Plate @ Pier WE-12 Lt. and Rt.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the Executed Contract.

NOTED
A. E. JOHNSON

RECEIVED
MAR 21 1972
OFFICE OF Materials ENGINEER

to Comptr 3-22-72

Location by station numbers:

"WE" 339+74.0

Estimate of quantities and cost:

Labor	$3,950.00
Equipment	160.00
Materials	4,150.00
Total	$8,260.00

NOTED
TOM EDWARDS

Project Name ... Fremont ... Federal ... 19 ...

Highway ... Stadium Freeway ...

County ... Multnomah ...

Contractor ... Drake-Willamette ... Joint ...

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Excessive rotation of Ring Girder, at Pier WE-12 required adjustment of the bearing devices. Value of salvage materials will be credited to project.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$ 13,928,737.75	
Present estimate of project cost, including $ 8,260.00 for work under this order	$ 14,086,245.45	
Expected ~~under-run~~ over-run amount . . .	$ 157,507.70	
Expected ~~under-run~~ over-run per cent	1.130	

Submitted by: ..... Resident Engineer

Approval Recommended: ..... Assistant Division Engineer

Approval Recommended: R. W. Ellis ..... Construction Engineer or Bridge Engineer

Approved: ..... Deputy State Highway Engineer, Assistant State Highway Engineer or Office Engineer.

SP**23572-724

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

I-405-8(22)304
7310

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: February 1, 1972

In reply refer to: 10-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
Contracts 7310, 7311 and 7312
Extension of Contract Time

Mr. Johnson, by letter dated January 25, has requested concurrence in a proposed 377-day extension of contract time. In order to avoid unnecessary complications in contract administration, and because of the current status of work on all three contracts, I agree that time delays on Unit "A" have a direct bearing on the other units. For this reason I concur in your proposal to treat the three contracts as one for time accounting purposes.

The data submitted in Mr. Johnson's letter includes time extensions for Extra Work Order No. 9 and change orders covering deck seal work, which has not yet been done. I take this opportunity to remind you that time could have been agreed upon at the time prices were negotiated and made a part of the approved orders. I suggest that you review current time administration procedures with this in mind.

I concur in the proposed time extension with the exception of Item 6 in your letter. The problems mentioned with zinc primer repairs and paint difficulties are not resolved as to responsibility. Consideration of time in connection with zinc and paint problems should be a part of the total analysis on that item.

Your support data covers a total of 439 days but the proposed extension is 377 days. I assume that the difference represents overlap of delay time. Excluding the painting delays, Item 6, from the recommended 377 day extension results in 210 days. For Federal participation purposes a 210-day extension is approved. I understand that there may be other factors that would warrant further consideration at a later date.

2-4-72
REFERRED TO

NOTED
F. B. KLABOE

RECEIVED
FEB
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JAN 27 1972
FOR FILING

I-405-8(22)304
1310

January 25, 1972

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, OR 97308

467

Dear Sir:

East Fremont, Contract 7310, Unit A, FAP I-405-8(22)304
East Fremont, Contract 7311, Unit B, FAP I-405-8(23)304
East Fremont, Contract 7312, Unit C, FAP I-405-8(24)304
Your File: 10-35-DA

Your January 6, 1972 letter has been received wherein you request more complete support data for a time extension request of 377 days for the above projects.

When the contractor's proposals for the above three units were accepted, the State also accepted a credit on the total cost of the project of $1,385,000. This credit was offered by the contractor as consideration for his being awarded all three contracts. It is felt that as far as completion dates are concerned, the three projects should be combined into one. Your concurrence in a 95-day time extension for Unit C in letters dated August 2 and August 17, 1971, stated that simultaneous completion of all units of the interchange is desirable.

The contract which has been delayed the longest should govern the completion date for all three. The percentage of contract work completed as of January 15, 1972 is as follows:

Unit A - 92%
Unit B - 97%
Unit C - 95%

Since Unit A is the largest contract and more work remains to be done on Unit A, it is felt that this unit will govern the overall project completion.

In view of the foregoing, I have listed below support data for delays to Unit A of the East Fremont Interchange. These delays total 439 days.

1. Strikes in Vancouver, B.C.

The strikes listed below took place in Vancouver, B.C., Canada, and delayed the delivery of structural steel to the Vancouver site. In all cases, the placement of column and cap concrete was such that the project was delayed because the structural steel components did not arrive when they were ready to be erected.

(a) The operating engineers and iron workers' strike took place at the Canron plant from February 12 to February 20, 1970. It prevented final fabrication of girders which had arrived from Japan.

(b) The Canadian Merchant Service Guild struck against the British Columbia Tugboat Owners Association from May 3 to June 15, 1970. It halted all marine towing on the British Columbia coast, which prevented shipments of steel to Oregon and prevented the receiving of semifabricated girders from Japan.

(c) The boiler makers and marine workers' strike occurred from May 4, to May 11, 1971. There was no production in either of the Canron plants, which prevented both girder and steel ring components from being shipped.

Contractor Delayed 59 Days.

2. Painters' Strike.

The placement of deck concrete on the project, a critical path item at this time, was delayed from June 3 to June 28, 1971.

Contractor Delayed 25 Days.

3. Carpenters' Strike.

The forming for deck slabs, also a critical path item at this time, was delayed because of a carpenters' strike at the job site from June 29 to July 13, 1971.

Contractor Delayed 15 Days.

4. Steel Ring Revisions.

Steel ring revisions were necessary to prevent overstress at certain bent locations. The contractor was notified and told to hold up fabrication of these rings on February 17, 1971. On May 13, 1971, the revised steel members were delivered to the job site. The contractor was unable to erect this group of structural steel as originally planned. Maximum use of equipment and labor could not be effected because of this revision work, nor could increased equipment and labor forces be utilized as planned. The total time that job progress was delayed was 126 days; 87 days to the time when the steel was delivered and 39 days for performance of the special erection work under Extra Work Order No. 9. Eight days, however, overlapped with the boiler makers and marine workers' strike at Vancouver, B.C.

Contractor Delayed 118 Days.

5. Concrete Deck Seal.

When the nation-wide program initiated by the Federal Highway Administration of sealing bridge decks was begun, change orders were written to seal the decks with linseed oil. This is added work and requires a minimum temperature of 45° and a thoroughly dry deck. It will be the last work to be done and it is estimated that it will take 55 calendar days to treat the 484,000 square feet of deck.

Estimated Contractor Delay 55 Days.

6. Painting.

Vinyl painting following exterior zinc primer repairs on the structural steel cannot start until temperature and humidity conditions improve, since the painting is dependent upon dry and relatively warm weather. It is estimated that this painting cannot begin until approximately April 15, 1972. The project is delayed since the remaining items of work, the signing and illumination, must follow behind a certain distance from the painting to avoid damage to the finished work items.

Estimated Contractor Delay 167 Days.

With your concurrence I propose to recommend to the Highway Commission that the contractor be granted a 377-day extension on all three contracts of the East Fremont Interchange, all without assessment of liquidated damages. This should be considered an interim extension as the delays occasioned by the bubbling and blistering of the vinyl paint has not been evaluated and should additional time be necessary, we will give this item further consideration.

Very truly yours,

George M. Baldwin
Administrator

By

A. E. Johnson
Assistant State Highway Engineer

bc George M. Baldwin
Tom Edwards
F. B. Klaboe
Walt Hart
H. S. Coulter
R. O. Cunningham

RJW:dh ja

RJW

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: January 6, 1972

In reply refer to: 10-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
Contracts 7310, 7311 and 7312
Extension of Contract Time

Careful study and consideration have been given to Mr. Johnson's December 21 letter requesting concurrence in time extensions on these three contracts. Mr. Johnson's letter proposes a 377-day extension to each contract.

Federal participation cannot be approved based on the data submitted with your request. Action by the Federal Highway Administration will be deferred pending receipt of detailed support data to justify your proposed time extensions.

1-11-72
REFERRED TO
BY DEPUTY STATE HIGHWAY ENGINEER

NOTED
TOM EDWARDS

RECEIVED
JAN 10 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JAN 14 1972
BRIDGE DIVISION

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910-222

RECEIVED
JAN

Form FHWA-121 (12-67)

UNITED STATES GOVERNMENT

FOR

Memorandum

I-405-2(22)304 C

TO : Mr. George H. Baldwin, Administrator of Highways
Salem, Oregon

7210

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: January 20, 1972

In reply refer to: 10-35-FA

RAILROAD COMPANIES
FILE No. 692

CM Litchfield 1-27-72

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange Section
Supplemental Grade Crossing Agreement

Reference is made to the April 1, 1971 Supplemental Agreement between the Oregon-Washington Railroad and Navigation Company and the State Highway Commission concerning the permit to use private roadways in connection with the construction of the subject project.

It is our opinion that because the contractor has assumed all the State's obligation with regard to this agreement and because Federal funds are not directly involved, it would not be appropriate for us to formally approve it. The original September 30, 1970 agreement was not formally approved.

We are retaining one informational copy for our files. The remaining two are being returned with this memorandum.

Enclosure

1-25-72
REFERRED TO
al
BY DEPUTY STATE HIGHWAY ENGINEER

NOTED
TOM EDWARDS

RECEIVED
JAN 24 1972
OFFICE OF
STATE HIGHWAY ENGINEER

A. E. JOHNSON

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Gen. Files

RECEIVED
JAN 28 1972
STATE OF OREGON
FOR I
1210

OREGON STATE HIGHWAY DIVISION

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

January 17, 1972

Drake-Willamette
1201 North Loring
Portland, Oregon

Re: East Fremont Interchange
Contract No. 7310
Unit A

Gentlemen:

Our testing of Carbolene's vinyl primer 6C for coating of cadmium plated bolts has been completed and it is permissible to use this material in lieu of epoxy mastic for cadmium plated bolts' protection. This material should be applied in one coat with no wash primer in accordance with the same job specifications with respect to temperature and humidity as those governing the application of vinyl paint. This is to be considered to be a short-term approval as it is our desire that you go back to the epoxy protection as soon as weather conditions will permit. Incidentally vinyl paint being supplied by the Carbolene Company should be applied in accordance with the job specifications for vinyl paint also.

H. S. Coulter
Metropolitan Engineer

NOTED
A. E. JOHNSON

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
Walter Hart
John Jenkins
R. E. Shotwell w/attach.

RECEIVED
JAN 18 1972
OFFICE OF
STATE HIGHWAY ENGINEER

CY Transmit 1-19-72

A E Johnson

RECEIVED
JAN 14 1972

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

HNTB

1805 GRAND AVENUE, KANSAS CITY, MISSOURI 64108
TELEPHONE: CODE 816, 474-4000
CABLE: HOWARDNEED KANSASCITY

Fort Fremont
Gen. Files
I-405-8(22)304
7310

PARTNERS
CARL L. EMS
M. C. LAMBERTON, JR.
JAMES F. FINN
PAUL L. HENEMAN
JOSEPH N. LOOPER
ROBERT O. BRANCH
BERNARD M. ROTTINGHAUS
GERARD F. FOX
WILLIAM M. WACHTER
BROWNING CROW
CHARLES T. HENNIGAN
EDGAR B. JOHNSON
DANIEL J. WATKINS

ASSOCIATES
REX M. WHITTON
DANIEL J. APPEL
DANIEL J. SPIGAI

ADVISORY BOARD
ENOCH R. NEEDLES
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ELMER K. TIMBY
JOSEF SORKIN

ERNEST E. HOWARD
1903 - 1953
HENRY C. TAMMEN
1908 - 1961
FRANK E. BLEISTEIN
1946 - 1969

January 7, 1972

Mr. Robert E. Shotwell
Oregon State Highway Department
5821 N.E. Glisan Street
Portland, Oregon 97213

Re: East Fremont Interchange
Unit A, Contract 7310
Jacking Procedure, Pier 12 Rt.

Dear Mr. Shotwell:

Enclosed are four copies of the sketch for the proposed procedure for jacking at Pier 12 ring. These are stamped "Approved as Noted," as follows:

1. Use 1/8 inch sheet lead or same equivalent method for contact with the concrete surface under all jack base plates.

2. Use beveled steel shims between head of jack rams and the bottom surface of the ring flanges to distribute the load evenly. The shims may be notched as required to clear the bolt head, but a minimum contact area of five inches along the girder web shall be maintained.

3. Center the jack heads under the centerline of the ring web plate. Place the center of the jack pairs 4'-6" from the centerline of the pier shaft.

This procedure will be satisfactory for the left column as well, should it be required.

RECEIVED
JAN 13 1972
OFFICE OF
STATE HIGHWAY ENGINEER

Yours truly,

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

Jack Kopetz

JK/pa

Enclosures

cc: Mr. Ed Hardt
Mr. Walter Hart

NOTED
A. E. JOHNSON

RECEIVED
JAN 11 1972
BRIDGE DIVISION

NOTED
R. W. ELLISON

ALEXANDRIA, VIRGINIA · BOSTON · CHARLESTON, WEST VIRGINIA · CHICAGO · CLEVELAND · DALLAS · DES MOINES
FAIRFIELD, NEW JERSEY · HARRISBURG · KANSAS CITY · LAHORE, WEST PAKISTAN · MIAMI · MILWAUKEE · MINNEAPOLIS
NEW YORK · ORLANDO · OVERLAND PARK, KANSAS · PHILADELPHIA · RICHMOND, VIRGINIA · SEATTLE · WASHINGTON

RECEIVED
JAN 1 1972
FOR FILING

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. Tom Edwards, State Highway Engineer
Salem, Oregon
7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: January 3, 1972

In reply refer to: 10-35-FA

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange Section
Railroad Centralized Traffic Control Cable

Based on the interpretation presented in Mr. Sollis' December 22, 1971 letter we concur that the Union Pacific Railroad expense as stated in their November 30, 1971 letter to Mr. Morgan is eligible for Federal participation. Authorization to proceed with the work is granted.

1-6-72
REFERRED TO
BY DEPUTY STATE HIGHWAY ENGINEER

RECEIVED
JAN 5 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
BOISE, IDAHO

cy Const.
cy Bridge
1-7-72
cy Sollis
1-10-72

NOTED
TOM EDWARDS

AEJ

NOTED
A. E. JOHNSON

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

RECEIVED
FOR FILING

I 405-8(2)304
7210

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
December 29, 1971

SUBJECT: East & West Fremont Interchanges
Rust Bond 6C Primer for Cad Bolts

To: John Jenkins
Materials Engineer
State Highway Building
Salem

ATTENTION: James Chidsey

NOTED
A. E. JOHNSON

Attached you will find a letter from Ralph Hannan, Project Manager for Anderson-Hannan & Company, together with a letter from Industrial Painting and Sandblasting Company, the painting sub on the West Fremont project. This correspondence deals with my approval of the use of Rust Bond 6C vinyl primer with the provision that a vinyl wash be used with this material.

Please note that this correspondence mentions that the Carbolene representative, Dave Muth, does not recommend the use of the vinyl wash for the vinyl primer. The reason that I requested that it be used was on your advice.

Would you please let me know whether or not the vinyl wash material is required to be used under the vinyl primer for cad bolt coating.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

Encs

cc: John Howard
Robert Shotwell w/attach.
Ivan Merchant "
A. E. Johnson "

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STATE HIGHWAY ENGINEER

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Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 28, 1971

In reply refer to: 08-35-FA

SUBJECT: Oregon Projects I-405-8(22 & 23)304
East Fremont Interchange Units A & B
Steel Inspection Contract with Pittsburg Testing Laboratory

Based on the information furnished with Mr. Merchant's December 21, 1971 letter we concur that the proposed amendment to the Consultant Agreement with the Pittsburg Testing Laboratories for the shop inspection of the fabrication of the structural steel for the subject project is in order to correct an obvious error and is therefore approved.

cc: Region (08-00.331)

cy to Bridge 1-5-72

NOTED
A. E. JOHNSON

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STATE HIGHWAY ENGINEER

AEJ

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910-222

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ENGINEERING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97227
December 23, 1971

SUBJECT:

East Fremont Interchange Units A, B, C
Contract No's. 7310, 7311, 7312
Prefix No's. 626-1017, -1018, -1022
Bridge No's. 8958-1, -2, -3
F.A.P. No's. I-405-8(22, 23, 24)304

To:

Mr. R.L. Schroeder
Metropolitan Engineer
5821 N.E. Glisan Street
Portland, Oregon 97213

Attention: Ed Hardt

At a recent meeting with Jack Gray of Drake-Willamette, Joint Venturers a slowdown in construction on the East Fremont Contracts was discussed.

The slowdown is primarily due to winter weather not allowing painting of structural steel to proceed. The need to paint the interior of the trapezoidal box beams prior to concrete deck placement is the most critical problem.

Our last deck pour took place on December 17, 1971. This completes deck work on Unit A to the following locations:

EW line between Pier 10 - Pier 11
WE line between Pier 10 - Pier 11
SW line between Pier 1 - Pier 2
WS line between Pier 1 - Pier 2

Therefore deck remaining to be poured is from these locations to Pier 2E.

All deck work is complete on Unit B and Unit C.

The contractor has cut his work force to about 40 men and work progresses on installation of deck expansion joints, parapet rail concrete finishing and other miscellaneous items that can be performed.

Based on last years weather I would assume that painting would commence in March, deck concrete would follow and would take 3-4 months. The remaining work after decks should see the job complete in late summer.

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

RES:rsr

CC: A.E. Johnson w/encl.
Ivan D. Merchant w/encl.
Files (3).

NOTED
A. E. JOHNSON

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JAN 3 19..
OFFICE OF
STATE HIGHWAY ENGINEER

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

December 8, 1971

Oregon State Highway Department
Metro Engineer
1101 N. Russell Street
Portland, Oregon 97227

Attention Mr. Robert Shotwell, Resident Engineer

Re: O.S.H.D. Contracts Nos. 7310, 7311 and 7312
Time Extension Requests

Gentlemen:

At a brief meeting with you on November 29, the impossibility of continuing full-scale construction operation at the subject project was discussed.

Primary inability to proceed is a function of inclement weather which has prevented painting work from being completed on the interiors of girders in units WE 5 and EW 4.

It is mutually understood that the Oregon State Highway Department concurs in this thinking.

Yours very truly,

DRAKE-WILLAMETTE JOINT VENTURERS

John R. Gray,
Project Manager

METROPOLITAN ENGINEER
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LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

I-405-8(22)304
7310

December 22, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
477 Cottage Street N. E.
Salem, Oregon 97301

NOTED
A. E. JOHNSON

Re: Buried CTC Cable
East Freemont Interchange Section
Stadium Freeway
Project No. I-405-8(22)304
Contract No. 7310

Dear Sir:

I call your attention to Mr. T. W. Litchfield's letter to you of December 7, 1971, concerning the above subject matter, in which he advised you that the Union Pacific Railroad had requested reimbursement from the State in the amount of $1145.00 for the underground installation of the CTC Cable, inasmuch as the permanent overhead installation at this time would interfer with the contractor's work.

He has advised me that you do not consider this a reimburseable item. It would be my opinion that the Railroad is not required to conduct their business at our convenience during the construction project. Where they find that it is necessary to install a cable through the construction area in a manner that will not be its permanent installation because of the construction, this is an item to which they would be legally entitled to reimbursement. I do not believe that the Highway Division can expect any business to conduct its operations or in any way limit expansion or improvement of its facilities merely because the Highway Division is constructing a highway. If they have to put in temporary cables or other temporary installations because of the highway construction in order to develop in an orderly course, this is an item for which the State would be legally responsible, and it would seem to me entirely reasonable that this would be an item that would be reimburseable by the Federal Highway Administration.

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

If you have any questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

LEE JOHNSON
Attorney General

Jack L. Sollis
Assistant Attorney General
Trial Division

JLS:vw

cc: A. E. Johnson
T. W. Litchfield

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STATE HIGHWAY ENGINEER

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I-405-2(22)-4
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
December 22, 1971

To: A. E. Johnson
Ass't. State Highway Engineer
State Highway Building
Salem

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Epoxy Paint for Cadmium Plated Bolts

You advised me today (12-21) of criticism regarding the lack of planning for solving the winter time--cadmium plated bolts--epoxy paint problem. I feel that this criticism is unjust for the following reasons.

Epoxy paint was not called for by our project specifications. It appeared on the jobs as a result of a package change requested by the Contractors in order to avoid the problems associated with field sandblasting of high strength bolts. Problems connected with this epoxy paint then, are properly the responsibility of the Contractor.

When it became apparent late last summer that the Contractors would not complete structural steel painting this year, it also became apparent to the writer that applying epoxy paint in the winter time would be a problem. Not having the technical background to be able to make an independent judgment regarding the relative merits of brands or types of paints, I look to our Materials Laboratory for this type of advice. During the last summer I had numerous conversations with our Lab people regarding the epoxy paint problem in an attempt to find an acceptable solution. I happened to have a diary entry on September 13, indicating one of these conversations where two suggestions by the Contractor, namely vinyl primer and organic zinc, were discussed. The Lab people felt that neither of these were the equivalent of the three mils of inorganic zinc originally specified. I inquired as to whether there was any other known paint which could take the place of the epoxy and the answer was in the negative. At that point, I advised both resident engineers to tell their contractors that if they wished to discuss these alternates or any others with us that I would be happy to arrange a meeting with our Laboratory people. No response was received from that invitation.

On November 19, I put out a memo to the files with copies to your office, the Bridge office and to the Laboratory setting forth the latest status on the cad bolt problem mentioning the alternates of heating the members to be painted so that the epoxy paint could be used in the winter and of falling back to the original intent of the specs whereby the bolts would be sandblasted and painted with inorganic zinc. The purpose of this memo was to alert everyone that the problem still existed hoping that perhaps someone could come up with an answer that I had overlooked. None came.

NOTED
A. E. JOHNSON
By Marie 12-23-71

GP*52475-724

I am now advised by the Laboratory that they feel the vinyl primer will give us a job that we can live with and so we are proceeding on that basis.

I have always felt that the Contractors should take the initiative in solving the epoxy paint problem rather than this office, although we have always attempted to cooperate to the fullest extent with anybody who showed an interest in solving the problem. With the limited time that I have available to devote to this problem, I don't know what more I could have done towards solving it.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: Tom Edwards
Ivan Merchant
John Jenkins
John Howard
Robert Shotwell

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I-4CT-8(23)364
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
December 22, 1971

SUBJECT: Tipped Bearing Assemblies
Pier 12
East Fremont Interchange
Contract 7310

To:

Memo to the Files

NOTED
A. E. JOHNSON

On Thursday, December 16, 1971, the problem of the tipped bearing assemblies at Pier 12 were discussed with Mr. Shotwell. The left assembly appears to be in bearing over all but a sector of the bearing. It was suggested that the bearing be checked to insure that it is functioning properly, then pressure grouted to insure 100 percent bearing.

The right assembly has rotated into a tipped position and should be corrected. It was suggested that the load on the bearing be relieved by jacking. The top and bottom plates of the bearing can then be brought into parallel alignment and the area under the bottom plate grouted.

Mr. Shotwell was advised to request a procedure and a cost from the contractor for doing the corrective work described above.

Walter J. Hart
Bridge Administration Engineer

WJH:dh

cc A. E. Johnson
H. A. Schell
Ed Hardt
Robert Shotwell

cy mailed

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DEC 22 1971
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OREGON STATE HIGHWAY DIVISION

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310

7310

December 21, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
477 Cottage St. N. E.
Salem, Oregon 97308

Gentlemen:

East Fremont Contract(7310 Unit A) I-405-8(22)304
East Fremont Contract(7311 Unit B) I-405-8(23)304
Steel Inspection Contract (PTL)

Our agreement of December 23, 1969 with Pittsburgh Testing Laboratory which you approved December 22, 1969 contains an error in Article IV 1 (a), Page 8, which must be corrected.

The nature of the error and how it occurred is explained in my letter to L. I. Lindas, Chief Counsel of September 2, 1971, copy attached.

Mr. Lindas' opinion as to what the State owes Pittsburgh Testing Laboratory is stated in his letter of September 17, 1971 to me per copy attached.

We are amending Article IV 1 (a) of the agreement per our letter of November 24, 1971 to Pittsburgh Testing Laboratory. This amendment is satisfactory to Pittsburgh Testing Laboratory as noted by their endorsement of my letter of November 24, 1971.

This matter has been discussed previously with Mr. Schell and Mr. Green of your office.

May I have your concurrence to the amendment?

Very truly yours,

NOTED
A. E. JOHNSON

R. L. Porter
State Highway Engineer
By

Ivan D. Merchant
Bridge Engineer

CAG/ag (Attachs.)
cc: A. E. Johnson w/attachs.
P. Hatcher-Acctg. w/attachs.
Region-Metro w/attachs.
R. Shotwell w/attachs.

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OREGON STATE HIGHWAY DIVISION

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NOV 30 1971
PITTSBURGH TESTING LAB
PORTLAND, OREGON

HIGHWAY BUILDING • SALEM, OREGON • 97310

November 24, 1971

Pittsburgh Testing Laboratory
2419 S. E. Powell Blvd.
Portland, Oregon 97202

Attention: Mr. Don Scott

Gentlemen:

East Fremont Steel Inspection
Agreement dated 23 December, 1969

I have your final invoice # 7075 billing us for work under our agreement. It is noted the final tonnage figure and the unit price for the same is in line with Article IV 1 (a), page 8 of the agreement, i.e. 13557 tons at $14.87 per ton for an amount of $201,592.50. Further language in the Article IV 1 (a) precludes the State from paying for inspection of a tonnage greater than that stated in the contract special provisions.

The tonnage stated in the contract special provisions is:

East Fremont Unit A	16,156,000 lbs.
East Fremont Unit B	8,740,800 "
	24,896,800 "or
	12,448.4 tons

It is noted your proposal of December 16, 1969, which we accepted, develops the figures used in the agreement, i.e. 13,557 tons at $14.87 for a total of $201,592.00. Had we noticed the discrepancy in the tonnage figures at the time we were discussing the proposal we would have called it to your attention and given you a chance to review and correct your figures.

It is our attorney's opinion that the State owes you the dollar amount of your proposal, that is $201,592.50 for the item.

We propose, by this letter, to amend the figures in Article IV 1 (a) as follows:

12,448.4 tons at $16.194+ for a total payment of $201,592.50.

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DEC 15 1971
PITTSBURGH TESTING LAB
PORTLAND, OREGON

RECEIVED
DEC 17 1971
BRIDGE DIVISION

If this amendment is satisfactory to you, please indicate your approval by endorsing the original of this letter in the space provided and return the same to me.

If satisfactory to you, I will correct your final bill 7075 in accordance with the above amendment and pass it along to our accounting section for payment.

Very truly yours,

R. L. Porter
State Highway Engineer
By
Ivan D. Merchant
Bridge Engineer

CAG/ag

Amendment satisfactory to
Pittsburgh Testing Laboratory
by Donald R. Scott 12-15-71

RECEIVED
DEC 15 1971
PITTSBURGH TESTING LAB
PORTLAND, OREGON

RECEIVED
DEC 17 1971
BRIDGE DIVISION

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

September 17, 1971

TRIAL DIVISION

THOMAS D. O'DELL
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS
JAMES P. CRONAN, JR.
QUINTIN B. ESTELL
LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN R. McCULLOCH
FRANK G. McKINNEY
EARL M. PRESTON
M. KENT ROBERTS
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA H. SORENSEN
ASSISTANT ATTORNEYS GENERAL

Mr. Ivan Merchant
Bridge Engineer
Oregon Highway Division
Salem, Oregon 97310

Re: Agreement: State & Pittsburgh Testing Laboratory - 12-23-69. Shop Inspection of Structural Steel - East Fremont Approach Complex.

Dear Mr. Merchant:

By letter of September 2, 1971, you've requested my view of the above agreement to ascertain if Pittsburgh Testing Laboratory is entitled to receive the full contract sum of $201,592.50 for the inspection performed.

The pertinent facts follows:

1. The steel to be inspected was to be fabricated in Vancouver, B. C. and in four cities in Japan.

2. Pittsburgh Testing Laboratory submitted its proposal to do the inspection, estimated to be 13,557 tons of steel at $14.87 per ton, or $201,592.00.

3. This proposal was based upon man hours needed to perform the work, plus mobilization and travel expense.

4. A Consultant Agreement was entered into between State and Pittsburgh Testing, which Agreement incorporates the estimated tonnage at $14.87 per ton or $201,592.50, plus certain other work not herein involved.

5. The Agreement further provides payment will be made for the actual quantity inspected, based upon the "State's estimate of tonnage involved as stated in subject contract special provisions".

Discussed with AEG 9/22
Engineer Fitzer,

6. The special provisions provide for payment on the basis of net tonnage of 12,448.4 tons, rather than gross tonnage of 13,557 tons contained in Pittsburgh Testing's Proposal and the Agreement.

7. It was necessary to inspect the gross tonnage since there was no way to know what steel was to make up the net tonnage at the time of inspection.

8. The state was aware the net tonnage would be 12,448.4 tons both at the time of receipt of Pittsburgh Testing's Proposal and the execution of the Consultant Agreement on December 23, 1969.

9. Since it was necessary to inspect the gross tonnage and since the proposal was based upon man hours needed to perform the inspection, the contractor, if informed of payment being based upon a net tonnage, would have of necessity increased the rate per ton to reach the sum of $201.592.50.

I do not view the foregoing as a contractor's error, but rather as an omission on our part in failing to catch the assumption he would be paid for the gross tonnage inspected. I am informed that had we noted the discrepancy in either the Proposal or Agreement, we would have called it to the contractor's attention and would have permitted him to change the same.

I am further informed we were aware the inspection would have included the gross tonnage, although we were only going to pay on the basis of net tonnage.

It is my opinion the facts herein affirm that equity and good conscience, as well as a legal duty, indicate we should make note of the foregoing and compensate the consultant on the basis of the agreed price of $201,592.50.

Very truly yours,

LEE JOHNSON
Attorney General

Leonard I. Lindas
Assistant Attorney General
and Counsel to
Highway Division

LIL:jm

FORM E-20

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

September 2, 1971
Salem, Oregon

To:

SUBJECT:

L. I. Lindas
Chief Counsel
BUILDING

We have an agreement (copy attached) with Pittsburgh Testing Laboratory for the shop inspection of structural steel for the East Fremont approach complex, State Contracts 7310 and 7311, that contains an apparent error in fee schedule item (a) - see page 8 of the agreement.

Pertinent facts concerning this apparent error are as follows:

Steel for West Fremont Interchange complex, our Contract 7214 was fabricated by Canron Limited of Vancouver, B.C. We negotiated an agreement with Pittsburgh Testing Laboratory to inspect this fabrication.

Canron Limited obtained the order for fabrication of the steel for the East Fremont Interchange complex, our Contracts 7210 and 7211, and advised us that a part of the steel would be partially fabricated by four different firms at five different locations in Japan with the balance of the steel required and final fabrication at their Vancouver, B.C. plant.

Inasmuch as we had commissioned Pittsburgh Testing Laboratory to inspect the steel for the West Fremont complex, and fabrication work on both jobs would be going on at the same time at Canron's plant, it was our desire to have one agency inspect both jobs for the sake of uniformity of work, administration, etc., we requested Pittsburgh Testing Laboratory to make us an offer on the inspection of the East Fremont steel.

Pittsburgh Testing Laboratory made us an offer per their letters of December 10, 1969 and December 16, 1969, copies attached.

In preparing their offer Pittsburgh Testing Laboratory used time of fabrication and tonnages of steel data obtained from the various fabricators involved, arrived at an overall estimated cost of $201,592.00 for the work and back figured that amount into a price per ton, as stated in the agreement.

We accepted this offer and wrote it into the agreement.

The error occurs in the tonnage figure used in their offer and the agreement.

The tonnage used in figuring the price per ton should have been 12448.4 tons, the State's estimate of the amount of steel involved. Refer to page 48, Contract 7310 which shows 16,156,000 lbs. or 8078 tons and page 71, Contract 7311 which shows 8,740,800 lbs. or 4370.4 tons for a total of 12448.4 tons for both contracts. Had the lower tonnage figure been used in figuring the price per ton that price per ton would be slightly higher. Had we noticed the error at the time the offer was accepted and the agreement prepared we would have given Pittsburgh Testing Laboratory a chance to reconsider their offer.

It is not our intention to short change Pittsburgh Testing Laboratory in any way. I feel they are entitled to essentially the $201,592.00 quoted, because a total figure such as this is the only way Pittsburgh Testing Laboratory could arrive at their cost for the work.

To explain the difference in the tonnage figures the fabricator normally considers the tonnage involved as that computed from the stock required to do the job and the State's estimate is based on the steel remaining in the completed work. This is the stock required, less trim, cutouts, copes and open holes.

What steps can we take to amend the agreement to the end that we can legally pay Pittsburgh Testing Laboratory their estimated cost of the work?

I would like to discuss this with you at your convenience.

Ivan D. Merchant
Bridge Engineer

CAG/ag
Attachments

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I-405-8(22)304
7310

December 21, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, OR 97308

Dear Sir:

East Fremont Contract 7310 (Unit A) FAP I-405-8(22)304
East Fremont Contract 7311 (Unit B) FAP I-405-8(23)304
East Fremont Contract 7312 (Unit C) FAP I-405-8(24)304

Allotted calendar days set up in Contracts 7310 and 7311 forecast a completion date of October 21, 1971, and July 18, 1971 for Contract 7312.

The contractor has suffered innumerable delays, some due to conditions under his control and some due to conditions beyond his control, and has presented a request for an extensive extension of time. We feel this request merits action at this time. Data pertinent to this request is as follows:

Item	7310	7311	7312
Contract calendar days, starting 9/27/69	755	755	660
Authorized time extension	-0-	-0-	95
Total authorized calendar days	755	755	755
Authorized calendar days expire	10/21/71	10/21/71	10/21/71
Estimated completion date	11/1/72	11/1/72	11/1/72
Estimated calendar days total to 11/1/72	1,132	1,132	1,132
Excess-Estimated calendar days over authorized	377	377	377
Delays-Actual and anticipated See schedule attached	456	488	318
Contractor's request	368	337	365

Intermediate completion dates specified in Contracts 7310 and 7312 were waived by price agreements on both contracts.

The apparent intent of the contractor's request was to advance the completion dates for the three contracts to on or about November 1, 1972.

The work is currently under a shutdown order effective about November 1 because of weather conditions unsuitable for satisfactory painting. It is expected that this shutdown order will be in effect, except for possible intermittent days, until about mid-April, 1972.

Unit A, Contract 7310, will probably be the control unit in completion of the three contracts. Deck slab pouring on this unit cannot proceed until the interior of the steel girders are given the final vinyl coat.

Major work to follow completion of all of the painting will be signing, parapet railing, and lighting poles and luminaires. This work can be dovetailed behind the start of vinyl painting but must follow behind a certain distance to avoid damage to finished work items.

During the progress of the work 22 price agreements and orders for extra work in an aggregate amount of $137,941 were written on Contract 7310; 21 in the amount of $78,868 on Contract 7311; and 32 in the amount of $45,302 on Contract 7312. It is not possible to determine the effect of these numerous orders involving plan changes and extra work on the contractor's construction schedule. It is felt that the allowances made for some of the major items, as listed in the schedule of delays, is a reasonable appraisal of the delays occasioned by the orders. It may be necessary to consider some of the other orders at a later date.

With your concurrence, I propose to recommend to the Highway Commission that the contractor be granted a 377-day extension on Contract 7310; a 377-day extension on Contract 7311; and a 377-day extension on Contract 7312, all without assessment of liquidated damages. This brings the three contracts to a common completion date.

This should be considered an interim extension, as the delay occasioned by the vinyl paint problem has not

been evaluated and should additional time be necessary, we will want to give this item consideration.

In view of the recent developments in progress on the Murphy Pacific contract for the superstructure within the project limits, it is apparent that the entire East Fremont complex will be ready for traffic well before it can be put to full use by traffic.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

bc R. L. Porter
Tom Edwards
Ivan Merchant
R. L. Schroeder

CAG:dh ja

DELAYS

No.	Item	7310	7311	7312
1	Operating Engineers and Iron Workers strike at Canron plant, Vancouver, B.C. Feb. 12, 1970 to Feb. 20, 1970	8	8	
2	Tugboat strike in Vancouver B.C. harbor Canron plant May 3, 1970 to June 15, 1970	43	43	
3	PA 10 - Steel ring revision Hold up in fabrication from Feb. 17, 1971 to May 13, 1971, which is the period of time the revised drawings were received to delivery date. Total time elapsed 87 days - 3 days overlap with Item 4	75		
	Estimated delay OEW9 - Ring WE9	6		
	Estimated delay OEW9 - Ring WE12	27		
	Estimated delay OEW9 - Ring 2E	6		
4	Strike - Canron plant Vancouver, B.C. May 4, 1971 to May 11, 1971	8	8	
5	Painters strike - Jobsite June 3, 1971 to June 28, 1971	25	25	25
6	Carpenters strike - Jobsite June 29, 1971 to July 13, 1971	15	15	15
7	Revised deck pour sequence Estimated time to move into Spans WE-13, EW 11 and EW-13 to perform this work along with OEW#9 - Considered to be interruptions to normal work schedule	21		
8	Redesign deck expansion joints Time for fabrication (Start 7/6/71) 126 Time for installation(18jts. @ 9 da.) 162 288			
	Hab. time lapse 7/6/71 to compl.-106		182	
9	Construct temporary guard rail on SE line			8

No.	Item	7310	7311	7312
10	Modify deck expansion Joints (PA13) To fab. shop 7/20/71 and returned 10/1/71			73
11	Concrete deck sealing Projected OEW - Estimate	55	40	30
12	Stop Work Order - Weather Unsuitable for painting 11/1/71 to 4/15/72	167	167	167
	Total delays	456	488	318

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Gen. Files

OREGON STATE HIGHWAY DIVISION

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

December 20, 1971

I-405-8(21)324
7310

Drake-Williamette
1201 North Loring Street
Portland, Oregon 97227

Re: East Fremont Interchange
Contract No. 7310 & 7311

Gentlemen:

My letter to you dated December 3, suggested that you look into an epoxy primer handled by the Miller Paint Company in Portland as a material that could be applied over the cadmium plated bolts at temperatures lower than 50 degrees. The West Fremont Contractor has subsequently determined that this material is not satisfactory for below 50 degree temperatures in that it requires temperatures in excess of 40 degrees for seven days in order to properly cure and it is not possible to guarantee during our winter months that this temperature will prevail for a week in the future.

The West Fremont Contractor has requested and we have given approval subject to some final testing by our Laboratory which should be completed in a week or so to substitute Carbolene's Rust Bond 6C vinyl primer in lieu of the epoxy. For cadmium plated bolts inside the box sections, this primer can be applied directly to the bolt. For exterior bolts, a vinyl wash primer must be applied on the cadmium plating in advance of the vinyl primer in order to assure proper adhesion. These materials are to be used according to the manufacturer's recommendations.

RECEIVED
A. E. JOHNSON

If you wish to make a written request for the use of this material, such a request would be approved with the understanding that no additional cost to the State would accrue due to such change.

A. E. JOHNSON

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

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DEC 21 1971
OFFICE OF
STATE HIGHWAY ENGINEER

ELH:pb

cc: A. E. Johnson
Ivan Merchant
John Jenkins
R. E. Shotwell

cy to Merrill

FREMONT BRIDGE COMPLEX PROJECT INFORMATION

PROJECT	CONTRACT NO.	CONTRACTOR	DATE AWARDED	DATE COMPL.	LENGTH (LANE FT.)	QUANTITIES: STRUCT. STEEL (LBS.)	QUANTITIES: CONCRETE (CY)	QUANTITIES: REINFORCE. (LBS.)	ENGINEERING CONSULTANT	EXPENDITURES: CONTRACT AMOUNT	EXPENDITURES: TOTAL* AMOUNT	EXPENDITURES: AMOUNT FOR ENGINEER CONSULT.
Fremont Bridge Pier Const.	7124	Peter Kiewit Sons' Co.	2-27-68	5-13-70	N/A	520,000	38,000	1,950,000	Parsons, Brinkerhoff, Quade & Douglas	3,370,072	4,188,200	714,000
Fremont Bridge Superstructure	7276	Murphy-Pacific Enterprises	7-3-69	Est. 1973	17,300	17,450,000	3,910	1,010,000	"	21,833,293	24,054,902	Included in above
West Fremont Interchange	7214	Anderson-Hannan	4-29-69	Est. 1972	36,000	15,952,000	65,647	19,150,000	Howard, Needles, Tammen & Bergendoff	18,893,289	20,868,473	1,653,642
West Fremont Interchange (Unit 2)	7623	Drake-Willamette	8-26-71	Est. 1972	Included in above	126,200	11,270	3,885,300	"	3,270,487	3,715,410	Included in above
East Fremont Interchange, Unit "A"	7310	Drake-Willamette	9-11-69	Est. 1972	32,000	16,156,000	19,817	4,388,500	"	12,994,987	13,928,738	Included in above
East Fremont Interchange, Unit "B"	7311	Drake-Willamette	9-11-69	Est. 1972	Included in above	8,740,800	15,725	2,989,400	"	8,982,856	9,458,459	Included in above
East Fremont Interchange, Unit "C"	7312	Drake-Willamette	9-11-69	Est. 1972	Included in above	352,500	8,252	2,712,000	"	2,007,349	2,218,094	Included in above
TOTALS						59,297,500	162,621	36,085,200		71,352,333	78,432,276	2,367,642

TOTAL COST FREMONT BRIDGE COMPLEX $80,799,918

* Includes Additional Anticipated Items, Contingencies, and Construction Engineering

NOTED
TOM EDWARDS

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UTILITY UNIT

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 Phone 378-6311

TOM McCALL
GOVERNOR

7310

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
477 Cottage Street N.E.
Salem, Oregon 97301

December 7, 1971

Re: Buried CTC Cable
East Fremont Interchange Section
Stadium Freeway
Project No. I-405-8(22)304
Contract No. 7310

Dear Sir:

The Union Pacific Railroad Company proposes to install a centralized traffic control system and this will necessitate the installation of aerial cable through the above captioned section. However, the installation of aerial cable will interfere with the State's construction work and, therefore, the State and Railroad have agreed this cable will be temporarily buried through the work area approximately as shown on the attached sketch.

You will find attached a copy of the Railroad's letter dated November 30, 1971, wherein they advise that the cost to bury the cable through the construction work area will be approximately $1145. Inasmuch as this is an added facility and to bury through the construction site will accommodate our work, the State has agreed to reimburse the Railroad for the cost of temporarily burying this cable. The cost of placing it on poles after construction will be borne by the Railroad.

We solicit your approval and authorization to proceed immediately with this work.

RECEIVED
DEC 7 1971
OFFICE OF
STATE HIGHWAY ENGINEER

Very truly yours,

P. D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Railroad and Utility Engineer

TWL:dl
Enclosure

cc: A. E. Johnson
V. L. Gallagher (2)

NOTED
A.E. [illegible]

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UTILITY UNIT

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 Phone 378-6511

7310

TOM McCALL
GOVERNOR

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
477 Cottage Street N.E.
Salem, Oregon 97301

December 7, 1971

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Stadium Freeway
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Contract No. 7310

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You will find attached a copy of the Railroad's letter dated November 30, 1971, wherein they advise that the cost to bury the cable through the construction work area will be approximately $1145. Inasmuch as this is an added facility and to bury through the construction site will accommodate our work, the State has agreed to reimburse the Railroad for the cost of temporarily burying this cable. The cost of placing it on poles after construction will be borne by the Railroad.

We solicit your approval and authorization to proceed immediately with this work.

Very truly yours,

F. D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Railroad and Utility Engineer

TWL:dl
Enclosure

RECEIVED
DEC 7 1971
OFFICE OF
STATE HIGHWAY ENGINEER

cc: A. E. Johnson
V. L. Gallagher (2)

NOTED
A. E. JOHNSON

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DEC 9 1971
FOR FILING

UTILITY UNIT

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 Phone 378-6511

7310

TOM McCALL
GOVERNOR

Mr. R. B. Simpson
Division Engineer
Federal Highway Administration
477 Cottage Street N.E.
Salem, Oregon 97301

December 7, 1971

Re: Buried CTC Cable
East Fremont Interchange Section
Stadium Freeway
Project No. I-405-8(22)304
Contract No. 7310

Dear Sir:

The Union Pacific Railroad Company proposes to install a centralized traffic control system and this will necessitate the installation of aerial cable through the above captioned section. However, the installation of aerial cable will interfere with the State's construction work and, therefore, the State and Railroad have agreed this cable will be temporarily buried through the work area approximately as shown on the attached sketch.

You will find attached a copy of the Railroad's letter dated November 30, 1971, wherein they advise that the cost to bury the cable through the construction work area will be approximately $1145. Inasmuch as this is an added facility and to bury through the construction site will accommodate our work, the State has agreed to reimburse the Railroad for the cost of temporarily burying this cable. The cost of placing it on poles after construction will be borne by the Railroad.

We solicit your approval and authorization to proceed immediately with this work.

Very truly yours,

F. D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Railroad and Utility Engineer

RECEIVED
DEC 7 1971
OFFICE OF
STATE HIGHWAY ENGINEER

TWL:dl
Enclosure

cc: A. E. Johnson
V. L. Gallagher (2)

NOTED
A. E. JOHNSON

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

P.O. Box 8979
PORTLAND, OREGON
97208

NOVEMBER 30, 1971

File Ref. D 9010-32-17

Routing

Morgan
Decker
Lane
Boehmer
Lumber
Peters
Brown
Glenn
Litchfield
Gallagher
Stein

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DEC 2 1971
CONSTRUCTION DIVISION

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Railroad and Utility Engineer

Dear Sir:

Per conversation between Mr. Litchfield and Mr. Scanlon, we are presently installing a CTC aerial cable under the East Fremont Interchange structure and across the temporary Contractor's crossing of our yard tracks in the vicinity of Pier #13. This is the area where we have previously placed our pneumatic tube system underground, temporarily, account bridge construction.

It will likewise be necessary to install the CTC cable underground, temporarily, in this area. Authorization is requested to install the cable underground at State's expense in line with the following estimated costs:

Labor	$ 800.
Material	265.
Equipment Rental	80.
Total	$ 1,145.

Upon completion of the bridge construction and removal of the Contractor's temporary crossing, the Railroad will at its expense, place the CTC cable on a pole line above ground. Please advise.

Yours very truly,

R. B. Hardin

R. B. Hardin,
Superintendent

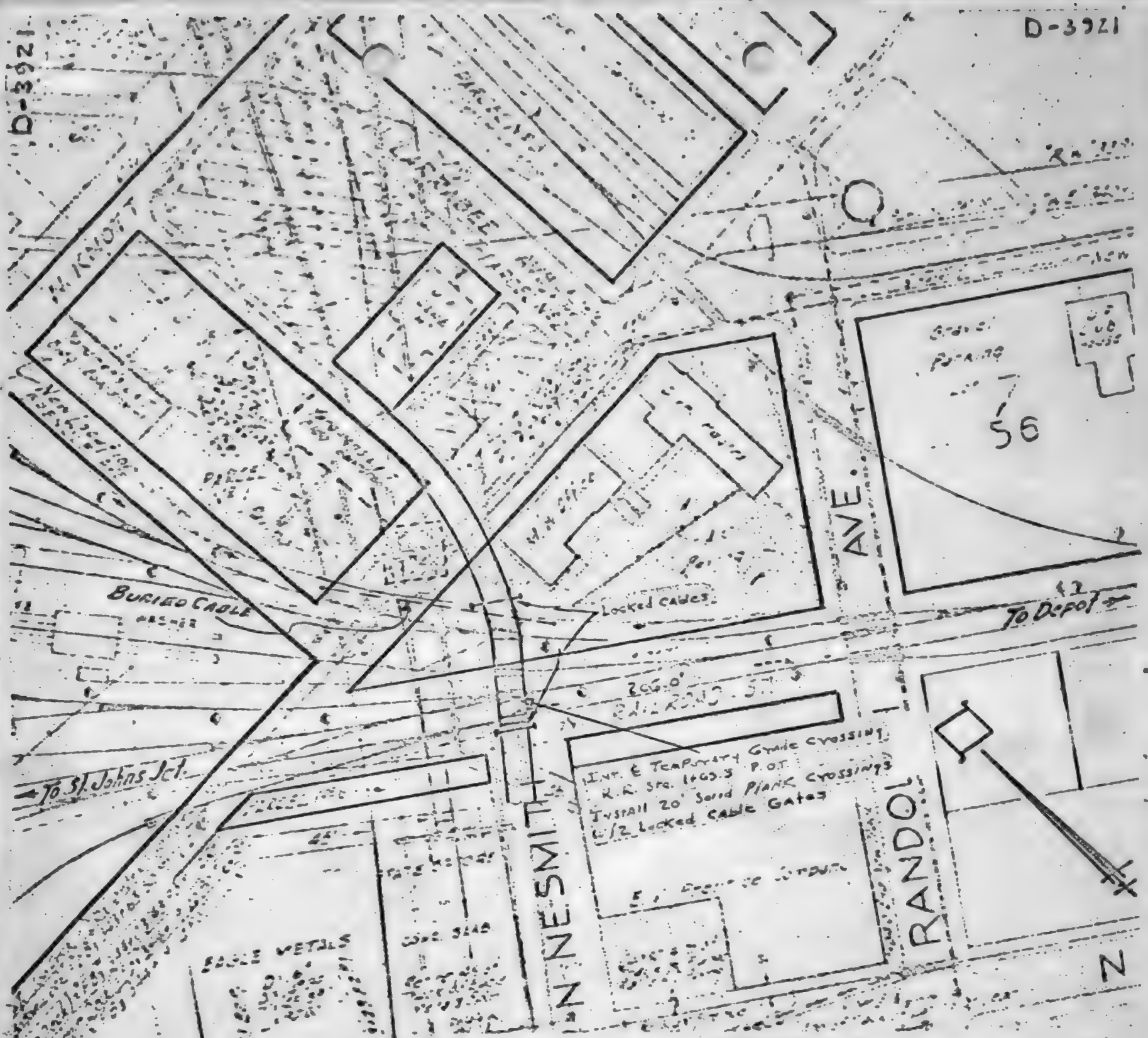

EXHIBIT "A"
OREGON-WASHINGTON RAILROAD & NAVIGATION COMPANY
UNION PACIFIC RAILROAD COMPANY (LESSEE)

ALBINA, OREGON

To Accompany Agreement with State of Oregon for Temporary Grade Crossing in Connection with Construction of East Approach to Fremont Bridge.

Office of Div. Engr.
Albina, Oregon

Scale: 1" = 100'
June 24, 1970

- - Legend - -

Temporary Roadway shown---------- Tinted Pink
Temporary Grade Crossings---------- Pink
and Cable Gates shown
Railroad Right-of-way shown-----Outlined Red

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DEC 7 - 1971
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Gen. File Copy

OREGON STATE HIGHWAY DIVISION

Metropolitan Section 5821 N. E. Glisan Portland, Oregon

December 3, 1971

I-405-1(25)
7310

Drake-Willamette
1201 N. Loring
Portland, Oregon 97227

NOTED
A. E. JOHNSON

EAST FREMONT INTERCHANGE UNIT A
CONTRACT 7310

Painting of cadmium-plated, high-strength bolts on the East Fremont project will be severely curtailed this winter due to the fact that the minimum temperature for applying epoxy primer is 50 degrees. So far, with no acceptable results, your people have been searching for an alternate to this epoxy primer that could be used at a colder temperature.

We believe that there is an epoxy primer manufactured by CIBA Company which would help to solve this problem. We are told that it can be applied down to at least 40 degrees F with good results. This material is handled locally by Miller Paint Co., and Mr. John Buckinger at their factory at 210 S. E. Madison Street in Portland is available to discuss this product with you.

Rather than to go into a long-term testing program in our laboratory for this material, if you are interested in using it, we would propose that a field trial be made of it to determine its acceptability. This could consist of painting one or more splice plates to determine the adhesion, hardness, etc. of the paint. If this test looked good, the material could then be accepted for use on the project.

If you are interested in investigating this material, please advise Mr. Shotwell.

R. L. Schroeder
Metropolitan Engineer

by
ORIGINAL SIGNED BY EDWARD L. HARDT

Edward L. Hardt
Assistant Metropolitan Engineer

CY rec'd 12-6-71

ELH:cw
cc: John Jenkins
A. E. Johnson
Ivan Merchant
Robert Shotwell

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OFFICE OF
STATE HIGHWAY ENGINEER

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DEC 2 - 1971
FOR FILING

I-405-8(22)204
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
November 19, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Epoxy Coating for Cadmium Plated Bolts

Painting operations on the subject projects are likely to be held up this winter due to the problem of applying epoxy mastic over the cadmium plated bolts in the winter time. The specifications for the epoxy paint do not allow it to be applied when the temperature is below 50 degrees. The painters have been searching for an alternate to the epoxy coating that will allow them to perform this work when the temperature is below 50 degrees.

Dave Muth of the Carboline Company has been pushing a vinyl primer called Rust Bond 6C. At the moment the laboratory has an inorganic zinc coated sample of steel left by Mr. Muth onto which they will apply some Rust Bond 6C and place it in a moist room for testing. Jim Chidsey told me that it would take at least 30 days before they could make any meaningfull evaluation of this coating as compared to the white metal blast and three mils of inorganic zinc which the specifications originally called for.

Jim suggested as an alternate to the vinyl primer that the Contractors try to heat the splice plates by the application of welding machine electrodes. He said that if the steel temperature was raised to between 60 and 70 degrees that this would supply ample heat to cure out the epoxy and that no further heat would have to be added to the steel or paint. It is also possible to heat the plates by using portable space heaters although this would be quite difficult on the outsides of the girders.

There is another solution to this problem which the Contractors have been avoiding and that is to sandblast the cadmium plating off of the bolts and apply inorganic zinc as on the rest of the structural steel. It might be pointed out that this entire problem of epoxy coating on the cad plated bolts is one of the Contractor's choosing and not one that is in anyway called for by the specifications.

I talked to Mr. Shotwell and Mr. Howard about the idea of heating the splice plates and asked them to discuss this with the Contractors. John Howard reported back that John Krieter had tried heating the splice plates with the welding electrode in the shop and found that since the plates are rather large, that while they were heating one part of the plate, the other part was cooling and they could never get the entire plate at the proper temperature. What it amounts to is they don't believe that heating the plates is

a feasible method of taking care of the epoxy problem.

It appears as though the only solutions to the epoxy coating problem is either sandblasting the cad plating off the bolts or using the vinyl primer which will apparently take the laboratory 30 days to evaluate.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: W. E. Johnson
Ivan Merchant
John Jenkins
John Howard
Robert Shotwell

Form E-[illegible]-[illegible]

STATE COPY 6-11

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)304
7310

APPROVED EFFECTIVE DATE 11-18-71
Contingent upon modification of project agreement if additional funds are required
BY [signature] Dist. Engineer
TITLE
DATE 12-10-71
FEDERAL HIGHWAY ADMINISTRATION

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Project Name East Fremont Interchange Unit A — Date November 16, 71
Highway Stadium Freeway — Contract No. 7310
County Multnomah — Prefix 626-1017
Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304
Address 1201 North Loring Street, Portland, Oregon 97227 — Order No. 11

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done: Grout anchor bolts at Pier 2 E.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the Executed Contract.

Location by station numbers:
FB 3 sta. 346+17.00 Pier 2 E

to Constr. cy. Johnson 12-15-71

NOTED
A. E. JOHNSON

NOTED
TOM EDWARDS

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STATE HIGHWAY ENGINEER

Estimate of quantities and cost:

Labor	=$200.00
Equipment	100.00
Material	20.00
Total	$320.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")
Due to an apparent oversite on Contract # 7310, no provision was made for removing sand from anchor bolt cans and grouting in the bolts. Work has not been performed.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$13,928,737.75
Present estimate of project cost, including $320.00 for work under this order	$14,078,930.05
Expected ~~under-run~~ over-run amount	$150,192.30
Expected ~~under-run~~ over-run per cent	1.078 %

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approval Recommended: [signature] Assistant Division Engineer

Approved: R. D. [signature] Assistant State Highway Engineer

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DEC 1

Form FHWA-121 (12-6...

UNITED STATES GOVERNMENT

FOR FI...

Memorandum

I-405-8(22)304

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon
7310 Attention: Mr. A. E. Johnson

FROM for R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Box 300
Salem OR 97308

DATE: November 9, 1971

In reply refer to: 08-35.6

SUBJECT: Protective Coatings for Steel

Attached are two articles on the protective coating of steel using zinc and other materials. The article by Montle from the Carboline Company indicates that the problems dncountered in the Fremont complex are not uncommon to inorganic zinc. The article by Dahlke gives some interesting guidelines on paint system selection. The comments on zinc and epoxy coatings might have some significance for future jobs. I am forwarding three copies for possible distribution to your specification and laboratory people.

Attachments

NOTED
TOM EDWARDS

RECEIVED
NOV 1 1971
OFFICE OF
STATE HIGHWAY ENGINEER

AEJ

11-15-71
cys to
I. D. Merchant, Materials
John Jenkins, Asst. Materials
Ed Nunter
Ed Hardt
Bob Fillmore

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910-222

File:
Protective coatings
(for steel).

Copy sent Schell Oct. 22-71 FHWA-14 JAS.

Unexplained Coatings Phenomena with Some Partially Baked Answers

J. F. MONTLE, *Carboline Co., St. Louis, Mo.*

IN COATINGS formulation and evaluation, certain results have occurred which are reproducible but unexplainable. Some answers have been suggested to explain the cause of these phenomena, but most have not been rigorously proven.

Undercutting

Undercutting is the primary cause of failure of maintenance coatings. Evaluating the rate of undercutting is normally quite straightforward. For example, when a coated test panel is exposed to a sulfuric acid environment, the effects of undercutting are quite visible as the voluminous rust product pries up the film (Figure 1). The corrosion products of steel exposed to sulfuric acid occupy a much greater volume than the original base metal, and undercutting is quite rapid.

In some test exposures, predominantly where salts are involved, there are difficulties in evaluating the rate of undercutting because it is not easily determined by visual means (Figure 2). The rate of undercutting as measured by visual rust formation in these environments is considerably less than the rate of undercutting as measured by carefully checking adhesion in the vicinity of the scribe. Most organic coating systems when exposed to salt fog cabinets will exhibit a steadily increasing loss of adhesion from the scribe if checked with a knife very shortly after removal from the test cabinet. If the panels are allowed to dry and the degree of undercutting then checked with a knife, the coating can usually be removed, but with difficulty, as far back as it could while the coating was fresh from the cabinet. After the distance back from the scribe in which the coating could be readily removed while wet has been reached, the adhesion becomes excellent, and the coating cannot be removed without splitting the primer.

The distance from the scribe where the coating can be removed easily while wet will increase steadily with time. The surface of the panel beneath the coating in this area shows no visible signs of corrosion.

Part of the same phenomenon is the row of blisters frequently observed away from the scribe. This is also more common to salt exposures than any other environment, and more frequently, salt water immersion. A row of blisters appears at a uniform distance from the scribe but not necessarily touching the scribe and thus indicates the maximum distance back from the scribe that the coating can be readily removed with a knife. If the panels are then immersed in salt water for a longer period of time, frequently a second and third row of blisters will appear progressively further away from the scribe.

Although the reason for this difference in adhesion is not understood, it is of enough significance that the two methods of rating undercutting, visual and knife, be used in all grading of test panels in salt exposures.

Anything that weakens the primer or allows it to be subjected to chemical attack obviously will lead to a greater rate of undercutting. The better the surface preparation, the lesser the rate of undercutting. Furthermore, anything which puts a greater stress on the bond will increase the rate of undercutting. Therefore, heavy film thickness, rigid materials frequently undercut more rapidly than thinner film, more flexible materials. It seems logical, then, that additional coats of the same material would cause more rapid undercutting than lesser thickness or number of coats. In many cases, however, this is not true with respect to undercutting. For example, three coats of epoxy coal tar at 8 mils per coat (24 mils total thickness) will undercut far less than two coats of the same system at 16 mils.

One possible explanation is that when corrosion occurs by electrical galvanic action, permeation of ions through the film completes the circuit and causes subfilm corrosion. Therefore, the additional film thickness will reduce the rate of undercutting because there will be a reduced amount of

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Note: This article is a highly condensed version of the original paper. For information on obtaining copies of the complete paper, interested readers should contact the editor of this journal, NACE, 2400 West Loop South, Houston, Texas 77027.

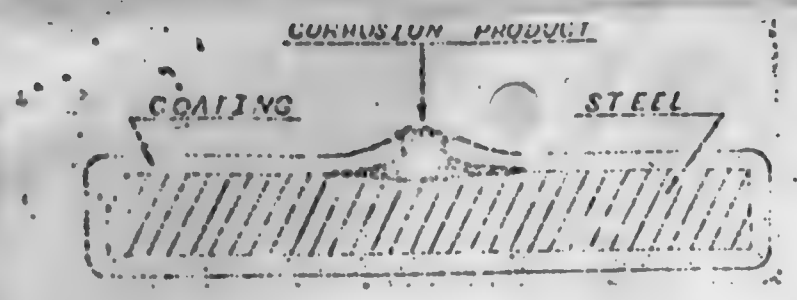

Figure 1 — Undercutting in a sulfuric acid environment.

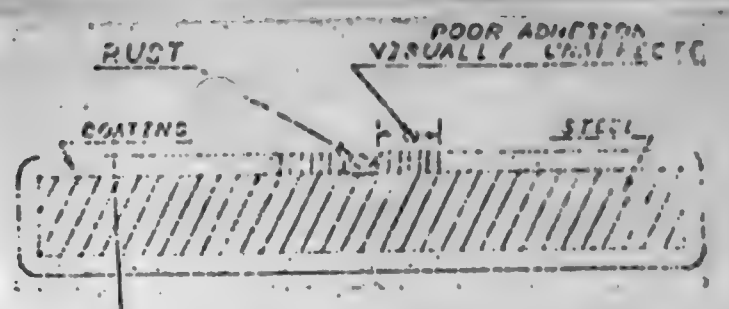

Figure 2 — Undercutting in a salt fog atmosphere.

penetration through the film. This explanation would also explain the row of blisters a finite distance back from the scribe. These blisters would be caused by penetration through the film aggravated by the corrosion at the bare scribe, and this would complete the electrical circuit. While this brief and incomplete explanation might be the answer to the blisters along the scribe and the reduced undercutting with increased film thickness, it does not explain why there is a significant loss of adhesion from the scribe where there is no visible corrosion. It does not explain why the adhesion is poor when the panels are freshly removed from the test exposure and why adhesion is quite good after allowed to dry overnight.

Cold Wall Effect

The greatly increased blistering of linings when subjected to thermal gradient is called the "cold wall" effect. One of the theories that has been presented to explain this effect is that the thermal gradient through the coating creates osmotic pressure and accelerates permeation through the film. In this respect, this failure is thought to be very similar to that initiated by a concentration cell or a surface contamination.

According to another theory, gases from the liquid media diffuse through the coating, condense upon reaching the cold wall, and the larger molecule formed by the liquid water cannot diffuse back to the film as readily. The pressure formed creates the blisters.

The author's work has shown that the effect of thermal gradient is most pronounced when dealing with purer solutions; i.e., penetration of pure water is accelerated more by a thermal gradient than salt water solutions. The rate of acceleration by thermal gradient is relatively independent of coating type. While the author's work has not indicated a better theory to explain this phenomenon, it has verified that the blistering which occurs is due to the degree of thermal difference.

Bubbling of Topcoats

One of the primary reasons for the success of inorganic zinc primers is that the film is open and porous, permitting free passage of the electrolyte to the base surface and providing a high degree of cathodic protection. However, this porous surface can cause some difficulty when the inorganic zinc primers are topcoated. Bubbling of the topcoat frequently occurs and is normally manifest shortly after the coating is applied. The bubbles usually grow rapidly and frequently burst, leaving a crater or void in the coating. The amount of bubbling varies from essentially none to several bubbles per sq inch. The bubbling occurs regardless of the method of application and with all generic types of coatings. Bubbling is worse, however, with coatings which dry rapidly on the surface.

The primary cause of bubbling is air and vapor displacement. When topcoats are applied over an inorganic zinc, the solvents in the vehicle will be absorbed by the porous primer. When this occurs, the air in the voids and porosities in the primer must be displaced. Also, as the liquid volatile solvents begin to evaporate from the porosities in the primer, the volume that they occupy is many times greater. This large volume of gas then creates pressure which forces its way up through the topcoat, forming a blister. If the coating is a film forming material which rapidly forms a skin on the surface, the bubbling will be aggravated. If the coating is one that stays wet for a long period of time, which permits the passage of the volatile solvent and air through the film without forming a blister, the amount of bubbling will be reduced.

With properly formulated topcoats, bubbling is not a great difficulty, but it is interesting to the formulator that the differences between materials which exhibit little or no bubbling and which bubble badly is very slight. Also, bubbling with some coatings will vary tremendously from day to day or from area to area for no known reason. Sometimes, changing to a faster thinner eliminates the problem, but sometimes, a change to a slower solvent works. Neither is there any explanation as to why random bubbling occurs. It appears that the solvents and air that are displaced migrate through the film to some particular void in the inorganic zinc primer, and all of the volatile material is channeled up through this spot, causing a bubble.

Nobody has a complete understanding of why bubbling of topcoats occurs and exactly how to completely eliminate topcoat bubbling. When pinholes do occur in the film of a topcoat, it is primarily an aesthetic problem. Pinholes and voids in the topcoat in normal service are rapidly filled with zinc salt corrosion products and have no noticeable effect on the life of the coating system.

Passivation of the Steel Surface

Inorganic zinc primers protect the steel by the difference in potential between the zinc metal and the steel surface. The potential difference generated is more than sufficient to entirely prevent corrosion of steel in an aqueous environment.

Tests run by the author have shown that protection of the steel can be obtained with no difference in voltage. This has been observed by others and has indicated that the method of protection by inorganic zinc is not due solely to cathodic or galvanic protection. The theory is that cathodic protection lasts only a short time and that the rest of the protection is due to formation of basic zinc compounds which produce a protective film on the steel and fill the pores of the zinc. It is this zinc silicate iron complex which protects the steel from corrosion. The author feels that this is only a partial explanation. It is known that zinc salts rapidly form on the surface of the zinc and are essential in order to keep the zinc from sacrificing too freely. If it were

not for these zinc salts, the service life of inorganic zinc primers would be quite short. There is a certain amount of permeation through this b[illegible]zinc salt or zinc compounds that are formed, and there could be sufficient transfer of electrons to in some way passivate the surface of the steel to prevent it from going into solution.

Topcoating Epoxy Coal Tar

Epoxy coal tar coatings cannot be allowed to be exposed to sunlight for any period of time without encountering difficulty in applying topcoats. The problem is due to ultraviolet light. Subjecting epoxy coal tar panels to heat aging or other exposures for various periods of time has always resulted in a surface that can be topcoated with no difficulty. However, exposure to sunlight for even short periods of time will result in a surface to which topcoats cannot be applied without loss of adhesion. Upon exposure to sunlight, some type of chalk layer forms on the epoxy coal tar surface. To successfully apply a topcoat, this weak boundary layer must be removed by mechanical abrasion or by chemical treatment.

The tightly adherent chalk layer formed is not apparent when wiped with a thumb, it is not removed by scrubbing with water and soap or most common solvents. The question is, why does this chalk layer form so rapidly? Is it due to oxidation of the coal tar? It is difficult to remove, yet topcoats split this surface layer readily. Scrubbing with ketone and aromatic solvents will not remove this layer, but when coating systems which contain only these solvents are applied, they can readily be peeled off taking the chalk layer with them.

It has been proposed that the cause is some reaction with a surface catalyst blush. However, the sensitivity to weathering is the same after the first chalk layer has been removed. After removal of the chalk layer, the epoxy coal tar coating must be topcoated promptly. If it is allowed to weather another two or three days, once again the chalk layer will [illegible]n. The cause remains unexplained.

Topcoat Blistering

Unlike the phenomena discussed previously, one particular type of blistering is not reproducible. It sometimes occurs when inorganic zinc primers are topcoated overall on one side of the panel but only partially on the front side. When the panel is immersed in fresh or salt water, blisters sometimes appear on the back side of the panel directly opposite the spot on the front where there is no topcoat. The delineation can be quite sharp. For example, if there is a 1-inch bare strip on the front side of the panel, a 1-inch strip of blisters down the back of the panel is observed. The only answer that has been proposed is that the hydrogen gas generated by the reaction of the zinc dust with the corrosive media diffuses through the steel and forms blisters on the opposite side of the panel. This, however, seems rather unlikely. Why would the hydrogen diffuse through the steel panel rather than only through the inorganic zinc coating? Also, this phenomenon is puzzling in that it does not occur all of the time even with the same primer and the same topcoat.

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JOHN F. MONTLE research director at Carboline Co., St. Louis, Mo., supervises laboratory research and development activities. He received a BS in chemical engineering from Washington University. An NACE member for 10 years and chairman of Unit Committee T-6B, Montle is also a member of the Society for Paint Technology.

An Illustrated Pocket-Size Handbook

Practical Corrosion Control of Gas Utility Piping

JOHN E. WRIGHT
Gas Service Company
Kansas City, Mo.

180 detailed illustrations showing how to go about controlling corrosion on gas utility piping are the main features of this book. Most situations normally encountered in trouble shooting and repairing leaking mains and service lines, detecting failed anodes, broken wiring, testing insulators, preventing or correcting shorts, and many others are covered with detailed, easy-to-understand drawings. They tell you what to do and what not to do.

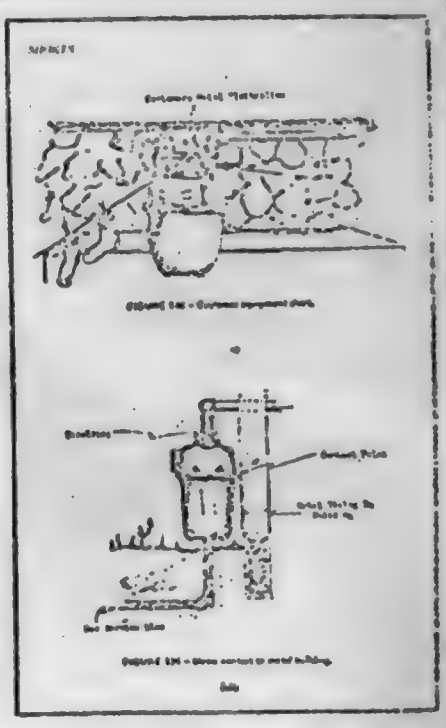
Text and pictures give a variety of construction and repair details designed to inform the field crew foreman or supervisor about the proper ways to limit corrosion.

The information came from the practical experience of Mr. Wright and his co-workers. A manual essentially the same as this book is in use by his company in reducing corrosion damage.

A page from the book is shown in miniature at right.

CONTENTS INCLUDE:

- Causes of corrosion
- Examples of corrosion
- Basic corrosion cell
- Soil resistance measurements
- Insulators
- Shorts
- Measuring volts by meter
- Tapes
- Cost of coating and wrapping pipe
- Gas meter insulators
- Insulated unions
- Flange insulators
- Plastic pipe insulators
- Types of bonds
- Safety
- Handling anodes
- Testing anodes
- Short circuits
- Checkpoints
- Leaks of steel mains
- Ductile iron mains
- Service repairs



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Zinc Rich Primers: Choice and Selection

C. A. DAHLKE, JR., *Race Engineering Co., Birmingham, Ala.*

IT IS generally agreed that protection of steel with coatings is the most effective and economical approach to corrosion control. The most important part of a protective coating is the part in direct contact with the steel, the primer.

Zinc rich primers owe their corrosion resistant properties to the galvanic or sacrificial protection of the zinc dust particles in the primers. Zinc particles are in direct contact with each other and offer a direct electrical connection from the surface of the primer to the steel substrate. Since iron and steel are below zinc in the galvanic series, zinc will corrode in preference to them when in electrical contact in a corrosive environment.

A zinc rich primer is not like the zinc filled primers commonly used for priming galvanized steel. A zinc rich primer has an extremely high percentage of metallic zinc pigments, whereas the galvanized steel primer has a lower metallic zinc content and is mixed with zinc oxide. To qualify for SSPC inorganic zinc rich nomenclature, the metallic zinc dust content of a primer must be at least 75% by weight of the total nonvolatile content. An organic zinc rich primer must contain not less than 85% metallic zinc dust by weight of the total nonvolatile contents.

Zinc rich primers do not lend themselves to accelerated testing. The best method of evaluation is to test them under the conditions of use. Some long term testing in marine atmospheres has indicated that inorganic zinc rich primers have a longer life in those environments. However, similar tests run in areas remote from the sea have shown little or no difference in the life span. Submerged tests in fresh water have indicated a longer life with some organics than with some inorganics.

One of the reasons for the shorter life of some of the organics in early tests was that the zinc content was comparatively low, and the organic resins had a tendency to completely encapsulate the zinc particles, insulating them from the steel. When the particles in direct contact with the steel are used up, the galvanic protection is lost, and corrosion takes over.

Newer organic zinc rich primers with over 85% metallic zinc show good electrical contact with each other. The slight partial insulating effect from electrolytes on the surface of these zinc particles slows down the sacrificial action of the zinc, which can be very beneficial and can lengthen the life of a zinc rich coating and its galvanic protection under conditions conducive to formation of soluble zinc salts. In these cases, any zinc rich primer requires a top coat to protect the zinc.

Inorganic zinc rich primers, completely resistant to most solvents, are ideal without top coats for use as tank linings, where solvents are involved. Inorganic primers normally have better weather resistance, abrasion resistance, and temperature resistance than organic primers.

One of the major advantages of organic zinc rich primer is its ability to accept top coats more rapidly than inorganic zincs. It is impractical to topcoat inorganic zinc rich primed steel in the fabricator's shop because of the cure time required. Most organic zinc rich primers can be topcoated within a few hours and some, such as the phenoxy zinc rich and the vinyl urethane zinc rich primers, in a matter of minutes. These have definite advantages in high-volume fabrication shops and in-plant maintenance painting. Another advantage of the organic zinc rich primers is the ability to adhere better to a "less-than-perfectly" prepared surface, eliminating the requirement of a tie coat between the primer and top coat.

Selection of a Zinc Rich Primer

One of the most important considerations in primer selection is the complete coating system. If no top coat will be used, an inorganic zinc may be preferred. If a solvent based top coat is to be applied, an organic zinc rich primer

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Note: This is a highly condensed version of the original paper. For information on obtaining copies of the complete paper, interested readers should contact the editor of this journal, NACE, 2400 West

Another important consideration is when the top coat will be applied. If the prim[illegible]s to be topcoated immediately, cure times become a major item.

Environmental conditions at the time and place of application are an important consideration. Water is necessary to complete the curing reaction of inorganic zinc rich primers. At temperatures below 7 C (45 F) and/or humidities below 50%, the curing rate of most inorganic primers is seriously retarded. Low humidity generally favors application of the organic types, and temperature below 7 C (45 F) begins to limit selection to a product such as the organic zinc rich phenoxy primer.

The environment in which the coating system will be located will have an effect on primer selection, even if two or three top coats are to be used. Some environments would be better protected with some type of primer other than zinc rich. For example, a highly caustic area subjected to splash or spillage of caustic material and mechanical damage would be far better off with a rust inhibiting epoxy primer. If mechanical damage in this area should occur to the zinc primer, the primer would be attacked and actually undercut the top coating.

Consideration should also be given to the applicator. Special techniques and training are required in application of zinc rich primers. This training is usually available from the supplier.

The manufacturer's experience with the zinc rich coating specified must be weighed. His ability to offer service, especially to the applicator, also is important. The manufacturer should be willing to guarantee the protective ability of the zinc rich primer and offer the service to back it up.

Economic Considerations

Zinc rich primers are relatively expensive when comparing costs, however, price per gallon can be deceptive. A low cost paint would probably have no more than 35% solids by volume. Either it does not go very far, or it is too thin to offer ample protection with one coat. Furthermore, an inexpensive primer often is applied over steel with little or no surface preparation. When the mill scale pops off, so does the primer. Properly top coated with two coats of low cost alkyd paints, this system will have a life expectancy of 3 to 5 years in a noncorrosive atmosphere. In a pulp and paper mill, the life expectancy of the coating, about 4 to 5 dry mils thick, is closer to 1 year, with failure starting in 6 months or less in severe areas.

With normal maintenance, the zinc rich primer system with two coats of epoxy offers about 10 dry mils thickness. It can be expected to be in good shape after 5 years. The primer should offer galvanic protection for 10 years and in some cases, [illegible] to 20 years.

Total cost/sq ft of the older system, based on *1969* prices, is about $0.39/sq ft. Based on *1971* prices, total cost of the zinc rich system is approximately $0.44/sq ft.

Specifications for protective coatings must be clearly written with no room for doubt, especially where zinc rich primers and "exotic" top coats are to be applied. The exact generic type of primer, the minimum surface preparation, and the minimum dry mill thickness should be specified. Minimum standards should be established and adequate inspection maintained.

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CLARENCE A. DAHLKE, JR. is a staff engineer with the Rust Engineering Co., Birmingham, Ala. A graduate of the Indiana Institute of Technology, Dahlke has a BS in chemical engineering. He is a member of the NACE and TAPPI.

CORROSION//72

RECEIVED
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FOR

F-405-1(2)
1-210

PARSONS, BRINCKERHOFF, QUADE & DOUGLAS, INC
111 JOHN STREET, NEW YORK, N.Y. 10038 TELEPHONE (212) 233-6300
CABLE: PARKLAP NEW YORK • TELEX WU 1-2403 • RCA 222 117
ENGINEERS

November 2, 1971 6043-X102

Mr. Ivan D. Merchant, Bridge Engineer
Oregon State Highway Department
State Highway Building
Salem, Oregon 97310

Re: Fremont Bridge

Dear Sir:

We are enclosing herewith a copy of Drawing SK-2, revised 11-1-71, covering details of corrective measures to be applied to the East Approach tie-girders.

As per your suggestion, we contacted the office of W. J. Wilkes, Chief, Bridge Division of the Federal Highway Administration and spoke with Mr. Frank Sears concerning the comments outlined in their letter to Mr. Ralph H. Phillips (Regional Federal Highway Administration) dated July 14, 1971.

We believe we have resolved the questions posed by their comments and the corrective work on the East Approach tie-girders may now proceed.

We are now working on corrective measures to the West Approach tie-girders which will follow shortly.

NOTED
TOM EDWARDS

Very truly yours,

PARSONS, BRINCKERHOFF, QUADE & DOUGLAS

NOTED
A. E. JOHNSON

L. G. Silano
Project Engineer

P.S. We anticipate receiving shop drawings on the above for our review.

SK/mw
MR. EDWARDS X
Encl. [redacted]

cc: Murphy Pacific, Attn: Mr. Jack Geer (w/reprod. print)
R. V. Cunningham (w/print)
R. L. Schroeder
Pittsburgh Testing Laboratories (w/print)
W. J. Wilkes (w/print)

Form E-208 (Rev. 11-70)

I-405-8(22)304
7310

STATE COPY

G-1P

OREGON STATE HIGHWAY DIVISION

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

APPROVED EFFECTIVE DATE 12-13-71
Contingent upon [illegible] project agreement if additional funds are required
BY [signature] Dist. Engineer
TITLE
DATE 12-10-71
FEDERAL HIGHWAY ADMINISTRATION

Project Name: East Fremont Interchange Unit A — Date: October 29, 19 71
Highway: Stadium Freeway — Contract No. 7310
County: Multnomah — Prefix 626-1017
Contractor: Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304
Address: 1201 North Loring St., Portland, Oregon 97227 — Order No. 10

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Repair damage to inorganic zinc primer on steel girders which has been caused by rusting of the top girder flange. This includes removal of loose rust stain from the primed surface and cleaning and repriming of the flange edge where paint failure has been caused by rusting of the top flange.

Location by station numbers:

Throughout project.

to Consult. 12-15-71

NOTED
A. E. JOHNSON

NOTED
JOHN EDWARDS

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OFFICE OF
STATE HIGHWAY ENGINEER

Estimate of quantities and cost:

Labor	$2,500.00
Equipment	1,000.00
Materials	500.00
Total	$4,000.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

The specifications do not allow the steel girder top flange to be painted. The resulting rusting of this flange which caused the damage to be repaired under this order was beyond the control of the contractor. Work has been started.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After final approval of the order, the Salem office will send one copy to the contractor, one to the Regional Engineer and one to the Resident Engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$ 13,928,737.75	
Present estimate of project cost, including $4,000.00 for work under this order	$ 14,063,086.85	
Expected ~~XXXXXX~~ over-run amount	$ 134,349.10	
Expected ~~XXXXXX~~ over-run per cent	0.964	

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] For: Construction Engineer or Bridge Engineer

Approval Recommended: [signature]

Approved [signature] R. D. Calhoun

FORM E-30 (REV. 10-69)

I-405-8(30)304
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 27, 1971

NOTED
A. E. JOHNSON

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Use of Carbozinc 11

Discussed with Mr. A. E. Johnson on October 26, the use of Carbozinc 11 vs. Enjay's Rust Ban 193 for zinc primer repair work on the subject projects. The facts of the question are as follows:

1. Enjay's Rust Ban 193 has been officially approved for use on both projects.
2. The painting subcontractors have requested (orally on the west side and in writing on the east side) that they be allowed to substitute Carbozinc 11 for Rust Ban 193. At the moment these requests have been granted and the painters have been using Carbozinc 11 for some time.
3. During painting meetings with Canron, we have been told that their painting consultant, CanTest, has said that Rust Ban 193 is preferable to Carbozinc 11 for our use of buildup of thin areas.
4. We have written to both prime contractors asking them to clarify the situation and if they want to use Carbozinc 11 to make a formal written request to do so.
5. Our laboratory (Jim Chidsey) told me that either paint was suitable for the use intended, although he felt that Rust Ban 193 would have a slight edge due to its superior adhesion quality.
6. I had previously been told by Mr. Johnson that our paint consultant, Hal Harlan, had no opinion regarding the relative merits of the two paints.
7. As mentioned above, we have been using Carbozinc 11 for some time and have found no particular problems with it.

Mr. Johnson told me that through a discussion with H. A. Anderson, he had been informed that they have a letter from Canron stating that if the switch is made away from Enjay's paint, then Canron feels that they are clear of any responsibility with regard to the paint problem. For this reason, the Contractors, at least Anderson-Hannan, will not write and make a formal request to use Carbozinc 11.

Mr. Johnson told me that in view of the facts listed above that he can see no reason to go back to Rust Ban 193 and he told me to proceed with the use of Carbozinc 11 without any written request from the Contractors.

R. L. Schroeder
Metropolitan Engineer

ELH:rb
cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
John Jenkins

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OCT 28 1971
OFFICE OF
STATE HIGHWAY ENGINEER

Edward L. Hardt
Assistant Metropolitan Engineer

FORM E-30 (REV. 10-61)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 27, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
Zinc Paint on "SW" Unit 2

My letter to Tom Edwards dated September 1, 1971 requested clarification of his letters to the East and West Approach Contractors which listed beams which were unsatisfactory on account of zinc film thickness. My letter was answered by a phone call from A. E. Johnson to the effect that only beams on the "Edwards list" were to have additional zinc buildup. If beams were not listed, they were to have rusty areas repaired and then painted with vinyl, regardless of the zinc thickness. These instructions were documented in my September 10, memo.

During the above-mentioned phone call, I asked Mr. Johnson about zinc repairs to "SW" Unit 2 girders. These are not on the "Edwards list" because at the time the paint thickness measurements were taken, they were not accessible, and the report from which this list was made carried that notation. I pointed out to Mr. Johnson that the units on each side of SW-2 needed repair and were on the list and we expected that SW-2 would be in the same condition. He told me that if these girders were not on the list then the only repair work done would be on rusty areas and the zinc would be topcoated, regardless of thickness.

The purpose of this memo is to document the fact, for John Howard's benefit, that he raised the question of repair work on SW Unit 2 and was given the instructions outlined above.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

EIH:nb

cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell

SP*52675.734

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OCT 29 1971
FOR FILING

I-405-8(22)
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 26, 1971

To: Memo To The Files

SUBJECT: East Fremont Interchange
Contract No. 7310 & 7311
Payment for Vinyl Paint Change

A meeting was held in Robert Shotwell's office on October 22, to discuss payment for the change in vinyl paint from Enjay to Carboline. Attending this meeting were the following:

Jack Gray	Donald M. Drake Company
Web Smith	" " " "
Smokey Grant	" " " "
Ron Owens	Klass Bros.
A. E. Johnson	OSHD
Ivan Merchant	"
Ed Hardt	"
Robert Shotwell	"
Chuck Lobaugh	"

NOTED
A. E. JOHNSON

The point of the meeting was to discuss whether or not the Contractor was entitled to a 15 percent markup on the cost difference between the Carboline and the Enjay vinyl paint. At the time the switch in paint manufacturers was discussed, Mr. Johnson offered to have the State pay the "difference in cost" between the two kinds of paint. Mr. Grant and company feel that this cost difference should included a markup for overhead and profit similar to a work order or price agreement type change. Mr. Johnson said that he felt that no markup was called for because he felt the offer he made was of mutual benefit to both parties to solve the vinyl paint problem, particularly since the Enjay paint that was being used up until that time did not meet the State's specifications. Mr. Grant said that he felt the markup should be allowed as a matter of principle as it would be on any change order to a contractor.

After considerable discussion regarding the merits of both positions, it was decided that a Price Agreement would be written for the net cost difference of the two kinds of paint based on the difference between invoices with no markup. The Price Agreement would carry a statement to the effect that by signing it, the Contractor was not waiving his right to handle the payment of the markup as a claim to be presented to the Highway Division if so desired at a later date. It was also mentioned that the actual payment for the additional cost of paint would

SP*52478-734

be based on a field count of the amount of paint actually used.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
Ivan Merchant
Robert Shotwell
John Howard
Jack Gray, Drake-Willamette

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7210

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 8, 1971

NOTED
A. E. JOHNSON

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract Nos. 7310 & 7311
Zinc Paint Repair Work

A meeting was held on October 7, at Mr. Shotwell's office to discuss the current practices with regard to inorganic zinc repair work on the East Fremont project. Present were the following:

Dick Davies	Canron
Don Fields	"
Jack Gray	Drake-Willamette
Leonard Grover	Enjay Chemical Company
Al Rear	OSHD
Ed Hardt	"
Bob Shotwell	"
John Howard	"
Chuck Lobaugh	"
George Bonnett	"

This meeting was requested by Mr. Davies to talk about the current practices for repair of inorganic zinc, particularly on the insides of the girders. This work has been completed for some time on the West project and will be completed on the East project in about another week.

Mr. Davies feels, and he says he has recommendations from CanTest and Enjay Chemical Company confirming this, that the amount of power wire brushing being performed for cleanup of rusty areas is excessive to the point where the zinc is merely being polished. He feels this can be detrimental to the adherence of the inorganic zinc, presently Carbozinc 11, which is being applied to these rusty areas. He makes a distinction in the degree of rusting, referring to what he calls "pinhole rusting" as less severe than rusting of an entire area. He feels that pinhole rusting can be cleaned up with a hand wire brush. He also feels that in the case of a rusty splice plate containing cadmium plated bolts that the cleaning method should be hand wire brushing of the rusty areas, thus preserving the cadmium plating rather than sand blasting the plate and bolts as is generally being done on the project. This latter procedure has been used since it is evident that it is the least expensive way to clean up the rusty splice plate problem.

Mr. Davies was told by the writer that our repair procedure is as follows:

1. "Loos " rust staining is removed by whatever method is most economical.

2. Rusty areas are marked by the State's inspector and cleaned by power wire brushing until the rust is no longer evident.

It was pointed out to Mr. Davies that the power wire cleaning criterea was established by Mr. Lowery of Canron on May 4, during a demonstration of cleaning procedures on the West Fremont Interchange. This repair procedure was approved by the Highway Division as documented in a memo written by Mr. A. E. Johnson dated May 5, 1971. At this time, no distinction was made as to the degree of rusting. With respect to cleaning of rusty splice plates, discussion by the group convinced Mr. Davies that the present procedure was the most practical and least expensive method of taking care of the problem.

Mr. Davies was told by the writer that if he would submit his proposed cleaning criterea backed up by recommendations from CanTest and Enjay that the State would consider them. It appears that the basic problem involved in Mr. Davies proposal is finding a practical way to distinguish between the various degrees of rusting and consequently degrees of cleaning necessary.

Mr. Davies brought up the fact that the inorganic zinc paint presently being used for repair work is Carbozinc 11 which does not conform to the recommendation of Gordon Smith of CanTest who feels that Enjay's Rust Ban 193 is the preferable paint to use due to its superior adhesion characteristics. This presents a very confusing situation, since on the one hand the painting subcontractors on both projects have requested the use of Carbozinc 11 while on the other hand the material supplier for the projects, Canron, tell us that this paint is not the best for the purpose intended. By copy of this memo, I am asking both prime contractors, Anderson-Hannan and Drake-Willamette, to come forth with a written request for the use of Carbozinc 11 if they feel that it is the best inorganic zinc available for this repair work.

R. L. Schroeder
Metropolitan Engineer

By
Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson
Ivan Merchant
John Howard
R. E. Shotwell
Anderson-Hannan
Drake-Willamette
Canron

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7310

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

NOTED
A. E. JOHNSON

Portland, Oregon 97213
September 24, 1971

To: John Jenkins
Engineer of Materials
State Highway Building
Salem

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Investigation of Inorganic
Zinc Paint

Rusting of structural steel primed with Enjay's Rust Ban 193 inorganic zinc on the subject projects has been the sbject of much controversy in the past several months. We are also concerned about girders which are not rusting but whose paint is thinner then that specified. The Contractors claim that the paint was applied properly in Vancouver, B. C. but has subsequently deteriorated. The State has laboratory tested (Harlan) this paint and has projected a possible maximum paint film loss of $\frac{1}{2}$ mil in a 6 month to 1 year period.

In order to explore this paint detericration question deeper, we feel it prudent to make winter exposure tests in Portland of Rust Ban 193. We would like to duplicate the seasonal exposure of the girders which have shown the worst rusting problem. We would propose to set out a number of samples of this paint and accurately measure the paint thickness to determine thickness loss as related to time and weather.

With regard to the paint application of these samples, it is our thought that original film thickness and rate of application of acid cure should both be variables. Consequently, we would propose to have samples with various film thickness, say 1, 2 and 3 mils, each with various amounts of acid cure applied. There may also be other variables which you would want to introduce into this program, such as directing a flow of water onto the sample to simulate the effect of the top flange of the girders sheding rain water on the girder webs. Hal Harlan may also have some ideas on this testing program.

We understand that your office has been directed to make field tests of Rust Ban 193. The above are our thoughts on such a study. We will be happy to work with you in any way in order to implement same.

R. L. Schroeder
Metropolitan Engineer
By: Edward L. Hardt
Edward L. Hardt
Assistant Metropolitan Engineer

RECEIVED
SEP 27 1971
OFFICE OF
STATE HIGHWAY ENGINEER

cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell

SP*82475-734

RECEIVED
SEP 30 1971
FOR FILING
STATE OF OREGON
1859
7310

RECEIVED
SEP 23 2 50 PM '71
CLAY MYERS
SECRETARY OF STATE

4623
FILED
SEP 23 1971
CLAY MYERS
SECRETARY OF STATE

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

September 22, 1971

Town Concrete Pipe, Inc.
P. O. Box 66034
Portland, Oregon 97266

Attention: R. A. Town, Jr.

NOTED ON CARD
9-28-71 KL

Gentlemen:

This is to acknowledge receipt of your letter of September 15, 1971, informing us that you have a claim for supplying materials in the amount of $7,531.70 against the bond obtained by C. J. Montag and Sons, as principal from Fireman's Fund American Fund Insurance Companies, as surety, on Contracts 7310, 7311 and 7312.

This appears to be in reference to the Willamette River Constructors three contracts, East Fremont Interchange, Stadium Freeway Projects in Multnomah County, Units A, B, and C.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bond on these contracts. We will advise them of the receipt of your claim, and we will also forward it to the Secretary of State for filing.

Please let us know when your claim has been paid.

Very truly yours,

ORIGINAL SIGNED
FLOYD QUERY

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cc The Travelers Indemnity Company
General Insurance Company of America
Willamette River Constructors

bc Secretary of State - Please acknowledge receipt of the attached
Commission claim on the enclosed copy of this letter.

NOTED
C. W. HEAD

RECEIVED
SEP 24 1971
OREGON
STATE HIGHWAY COMMISSION

Form E-123

TOWN CONCRETE PIPE, INC.
P.O. BOX 66034 PORTLAND, OREGON 97266
TELEPHONE: 777-3301

PLANT LOCATIONS: 6803 S.E. JOHNSON CREEK BLVD.
755 N.E. COLUMBIA BLVD.

MEMBER: OREGON CONCRETE PIPE ASSOCIATION
AMERICAN CONCRETE PIPE ASSOCIATION

September 16, 1971

Oregon State Highway Department
State Highway Building
Salem, Oregon

Notice is hereby given that Town Concrete Pipe, Inc. has a claim for supplying the following materials; concrete sewer pipe, manhole materials, and fittings, in the sum of $7,581.70 against the bond obtained by C.J. Montag and Sons, as principal from Fireman's Fund American Fund Insurance Companies, as surety, for the work of Oregon State Highway, Stadium Freeway, East Approach to Fremont Bridge, Contracts: # 7310, # 7311, and # 7312 .

Town Concrete Pipe, Inc.

R.A. Town Jr.

R.A. Town Jr.
President

Registered Letter: Return Receipt Requested

CC Fireman's Fund
Attention: Ross Engle

RECEIVED
SEP 20 1971
OREGON
STATE HIGHWAY COMMISSION

NOTED
C. W. HEAD

TO: FROM:
SEP 22 1971

I-46-4(22)304
7210
C Files

East Fremont Interchange
Contract 7310

SUMMARY OF STRUCTURAL STEEL MEMBERS THAT HAVE BEEN RED-TAGGED BY PITTSBURGH TESTING LABORATORY BECAUSE OF PAINT DEFICIENCIES

1. Report No. 3, dated 10/14/70, Canron, Ltd.

B = Rust-Ban 193 on splice plates not approved

Component No.	Remarks
Girder GA1	B
" GB1	B
" GA2	B; Soft coating on girder; post cure used; part A liquid used
" GB2	B
" GA3	B
" GB3	B
" GA4	B
" GB4	B
" GA5	B
" GB5	B
Floor Beams (31)	B
MAS Plates (11)	Paint was coming off
Shear Key Stiff	" " " "

2. Report No. 4, dated 11/3/70, Canron, Ltd.

D = Rust-Ban 191 powder - 193 liquid - 6851 accelerator
G = No post cure on touch up due to rain
H = Final touch up not complete due to rain

Component No.	Remarks
Girder GB3	D
" GA4	D
" GB4	D
" GA5	D
" GB5	D, G
" GA6	H
" GB6	G
" GA7	D, G
" GB7	D, H
Floor beams (12) & Stringers (11)	Paint touch up done over accelerator and without accelerator over

3. Report No. 5, dated 11/10/70, Canron Ltd.

Component	Remarks
Floor beams (4)	Paint flaking off edges

4. Report No. 42, dated 3/16/71, Canron Ltd.

The components shown below were red tagged because they underwent a non-approved procedure: Rust-Ban 193 and post cure accelerator 6851 applied; found to have deficient mil coverage; components hosed down to remove accelerator and another coat of Rust-Ban 193 applied; inspector thought not all of accelerator had been removed.

Girders		Ring Sections	
A2Q	A4J	11EQ	11IP
B2Q	B4J	11AQ	3FR
BJ6	D2Q	10AQ	10BQ
AJ6	A3J	11JP	A4J
C2Q	A5J	11LP	11PQ
A7J	B5J	11CQ	11KP
B2J	B3J	11BQ	11HP
B7J	A2J	1HR	1FR

RECEIVED
SEP 23 1971
FOR FILING

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

September 21, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 500
Salem, Oregon 97308

Attention Mr. Herbert A. Schell, Jr.

Dear Mr. Simpson:

Fremont Bridge Fabrication
Panel Point 3

At the time the cracked welds at panel point three at the junction between the arch rib and tie girder and machined junction piece was discovered, the question arose as to the method of assembly of the entire piece. I am sending you two copies of the following information received from our consultants, our inspection agency, and the fabricator. This material is for your information.

1. Two copies of a letter dated August 17, 1971, from Parsons, Brinckerhoff, Quade & Douglas, Inc. The material mentioned in the first paragraph of the letter is not attached as it is not applicable to the problem.

2. Two copies of a letter dated August 18, 1971, with one sheet of welding procedure qualification tests, Report No. 9, and one sheet of assembly sequences as prepared by Murphy Pacific. This sketch indicates the actual sequence of operations in the assembly of the completed piece.

3. Two copies of a letter dated September 9, 1971, from Pittsburgh Testing Laboratory together with a narrative of the welding prequalifications with copies of four letter-size sheets referring to the welding procedure qualification.

NOTED
A. E. JOHNSON

4. Two copies of a letter dated September 15, 1971, from Pittsburgh Testing Laboratory with two sheets of a narrative and a letter-size sheet of the assembly procedure for the piece in question.

This material has been gathered at your request for your information and for the information of your Washington, D.C. office.

Very truly yours,

R. L. Porter
State Highway Engineer
By ORIGINAL SIGNED
IVAN D. MERCHANT
Ivan D. Merchant
Bridge Engineer

IDM:dh
Attachments

cc A. E. Johnson
L. H. Young
V. E. Skoog

RECEIVED
SEP 21 1971
OFFICE OF
STATE HIGHWAY ENGINEER

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

SEP 23 1971

J.405-8(22)504
2310

DEPARTMENT OF JUSTICE

100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

September 17, 1971

TRIAL DIVISION

THOMAS D. O'DELL
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS
JAMES P. CRONAN, JR.
QUINTIN B. ESTELL
LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN R. MCCULLOCH
FRANK G. MCKINNEY
EARL M. PRESTON
R. KEN ROBERTS
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA H. SORENSEN
ASSISTANT ATTORNEYS GENERAL

Mr. Ivan Merchant
Bridge Engineer
Oregon Highway Division
Salem, Oregon 97310

NOTED
A. E. JOHNSON

Re: Agreement: State & Pittsburgh Testing Laboratory - 12-23-69. Shop Inspection of Structural Steel - East Fremont Approach Complex.

Dear Mr. Merchant:

By letter of September 2, 1971, you've requested my view of the above agreement to ascertain if Pittsburgh Testing Laboratory is entitled to receive the full contract sum of $201,592.50 for the inspection performed.

The pertinent facts follows:

1. The steel to be inspected was to be fabricated in Vancouver, B. C. and in four cities in Japan.

2. Pittsburgh Testing Laboratory submitted its proposal to do the inspection, estimated to be 13,557 tons of steel at $14.87 per ton, or $201,592.00.

3. This proposal was based upon man hours needed to perform the work, plus mobilization and travel expense.

4. A Consultant Agreement was entered into between State and Pittsburgh Testing, which Agreement incorporates the estimated tonnage at $14.87 per ton or $201,592.50, plus certain other work not herein involved.

5. The Agreement further provides payment will be made for the actual quantity inspected, based upon the "State's estimate of tonnage involved as stated in subject contract special provisions."

NOTED
TOM EDWARDS

RECEIVED
SEP 17 1971
OFFICE OF
STATE HIGHWAY ENGINEER

6. The special provisions provide for payment on the basis of net tonnage of 12,448.4 tons, rather than gross tonnage of 13,557 tons contained in Pittsburgh Testing's Proposal and the Agreement.

7. It was necessary to inspect the gross tonnage since there was no way to know what steel was to make up the net tonnage at the time of inspection.

8. The state was aware the net tonnage would be 12,448.4 tons both at the time of receipt of Pittsburgh Testing's Proposal and the execution of the Consultant Agreement on December 23, 1969.

9. Since it was necessary to inspect the gross tonnage and since the proposal was based upon man hours needed to perform the inspection, the contractor, if informed of payment being based upon a net tonnage, would have of necessity increased the rate per ton to reach the sum of $201.592.50.

I do not view the foregoing as a contractor's error, but rather as an omission on our part in failing to catch the assumption he would be paid for the gross tonnage inspected. I am informed that had we noted the discrepancy in either the Proposal or Agreement, we would have called it to the contractor's attention and would have permitted him to change the same.

I am further informed we were aware the inspection would have included the gross tonnage, although we were only going to pay on the basis of net tonnage.

It is my opinion the facts herein affirm that equity and good conscience, as well as a legal duty, indicate we should make note of the foregoing and compensate the consultant on the basis of the agreed price of $201,592.50.

Very truly yours,

LEE JOHNSON
Attorney General

Leonard I. Lindas
Assistant Attorney General
and Counsel to
Highway Division

LIL:jm

Form FHWA-121 (12-

UNITED STATES GOVERNMENT

Memorandum

I 405-8(22)304

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: September 14, 1971

In reply refer to: 08-35.6

SUBJECT: Oregon Projects I-405-8(20)303 & I-405-8(22)304
West and East Fremont Interchanges

Mr. Johnson's August 27 letter satisfactorily answers the questions raised in the inspection reports sent you May 18.

I believe that the measures you propose to undertake to continue the painting are satisfactory. I concur in the change in paint color and feel it will benefit the overall appearance of the project.

You state that you would agree to a change in type of vinyl paint for the remaining work. We concur in the substitution of Carbolene for the Enjay product. I am not ready at this time, however, to agree to Federal participation in the increase in cost.

cc Merchant
Schroeder
9-21

NOTED
A. E. JOHNSON

NOTED
TOM EDWARDS

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

RECEIVED
SEP 14 1971
FOR FILING

I-405-8(22)304
7310

September 13, 1971

Drake-Willamette Joint Venturers
1201 N. Loring Street
Portland, Oregon 97227

Gentlemen:

Re: East Fremont Interchange
Contracts 7310 and 7311

My letter of August 16 listed beams which were unacceptable as to primer thickness.

The letter was intended to imply that the balance were acceptable and may be painted with vinyl subject, of course, to spot-painting of erection scratches, mars, or any obvious rust areas which would be repaired under normal practices.

The ring beams have not been accessible to measure. When they are, the same principles as used on the beams shall apply.

Very truly yours,

R. L. Porter
State Highway Engineer

By

Tom Edwards
Deputy State Highway Engineer

TE:ja

bc R. L. Porter
A. E. Johnson
Ivan Merchant
R. L. Schroeder
John Howard
Robert Shotwell
John Bond

RECEIVED
SEP 15 1971
FOR FILING

FORM E-30 (REV. 10-69)

I-405-4(22)-54
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
September 10, 1971

To: Memo to the File.

SUBJECT: West Fremont Interchange
Contract 7214
East Fremont Interchange
Contract 7310, 7311
Zinc Paint on Outsides of Girders

Received telephone instructions this afternoon from A. E. Johnson regarding clarification of Tom Edwards' letter of August 16, 1971, to the contractors on outside girder zinc repair. These are:

1. All girder sections listed on the Edwards' letter of August 16, 1971; are to have additional zinc paint applied where coverage is below 2 mils.

2. All other structural members except for ring beams and columns are to be repaired with additional zinc if they are rusty; otherwise, they are to be coated with vinyl regardless of the zinc thickness.

3. Ring beams and columns are to be measured when accessible, and where zinc thickness is less than 2 mils., they are to have additional zinc added. If they are rusty, they are to be repaired regardless of the zinc thickness.

4. As mentioned in the Edwards' letter, "erection scars, skips, holidays and rust" are to be repaired whenever found.

Mr. Johnson said that these instructions had been given him by Mr. Edwards who was going to write to contractors clarifying the situation. Any questions regarding the above instructions should be referred to the writer.

RECEIVED
SEP 15 1971
OFFICE OF
STATE HIGHWAY ENGINEER

R. L. Schroeder
Metropolitan Engineer

by Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:cw
cc: A. E. Johnson
John Howard
Robert Shotwell

9-10-71: Discussed this @ 3:30 PM with John Howard, Bob Shotwell, Chuck Colbeck, Geo Bennett, Frank Seiser, Glen Wood, Earl Bowerman at John Howard's office. E.L.H.

BP 52479-734

RECEIVED
OCT 11 1971
FOR FILING

OREGON STATE HIGHWAY DIVISION

I-405-8(32)=04
7310

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

September 1, 1971

Oregon State Highway Commission

Request for Extension of Time
No. 8
September 8, 1971 meeting

Gentlemen:

Prior to advertising for bids on the three units (A, B, and C) of the East Fremont Interchange project, the specifications were written anticipating the possibility of each unit being awarded to a different contractor and required certain work to be completed at various times in order to provide the least conflict between contractors' working forces and allow an orderly completion of the work. Receipt of bids resulted in award of all units to the same contractor, Willamette River Constructors (name subsequently changed to Drake-Willamette Joint Venturers), Contract No. 7312. Such award eliminated the need for completion dates designed to provide for coordination between contractors.

The contractor now requests an increase in the contract time on Unit C to allow simultaneous completion of all units as one project. Access to Units A and B is through Unit C, thus necessitating the use of Unit C as an access ramp by the contractor's forces until Units A and B are completed. Use of Unit C as a ramp somewhat complicates the early completion of that unit. Unit C by itself is not usable by the traveling public and must be combined with completed Units A and B to provide a useful facility. Early completion of Unit C presents no advantage to the State or traveling public. Final inspection and acceptance of these units will be more efficient if all units are finalized at one time rather than at two different times as now specified.

A second inspection of Unit C for possible damage incurred during the final stages of Units A and B will also be eliminated by common completion.

Completion of Unit C as specified requires restoration of the Minnesota Freeway to a capability of handling the normal traffic flow at the specified time of completion. In order to provide this capability within the originally specified time of 660 calendar days, the contractor agrees to move the existing barricade on both the northbound and southbound Minnesota Freeway out into the shoulder area sufficient to restore the original traffic lanes and allow normal traffic flow.

In view of the circumstances prevailing at the time of specifying an early completion date for Unit C and the subsequent effect of letting all units to a single contractor and since no advantage is gained by the State or the traveling public with an early completion of Unit C, I recommend the contractor be granted a 95-calendar day extension on Unit C (Contract 7312) without assessment of liquidated damages. This waives liquidated damages for the 95-day period.

This is a Federal-aid project and we have the concurrence of the Federal Highway Administration.

This matter will be on the agenda for your consideration at the September 3 meeting.

Very truly yours,

R. L. Porter
State Highway Engineer

cc Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
I. D. Merchant
F. D. Morgan
V. E. Skoog
L. H. Young
R. L. Schroeder
Robert Shotwell

CAG:dh fn

Completion of Unit C as specified requires restoration of the Minnesota Freeway to a capability of handling the normal traffic flow at the specified time of completion. In order to provide this capability within the originally specified time of 660 calendar days, the contractor agrees to move the existing barricade on both the northbound and southbound Minnesota Freeway out into the shoulder area sufficient to restore the original traffic lanes and allow normal traffic flow.

In view of the circumstances prevailing at the time of specifying an early completion date for Unit C and the subsequent effect of letting all units to a single contractor and since no advantage is gained by the State or the traveling public with an early completion of Unit C, I recommend the contractor be granted a 95-calendar day extension on Unit C (Contract 7312) without assessment of liquidated damages. This waives liquidated damages for the 95-day period.

This is a Federal-aid project and we have the concurrence of the Federal Highway Administration.

This matter will be on the agenda for your consideration at the September 3 meeting.

Very truly yours,

R. L. Porter
State Highway Engineer

cc Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
I. D. Merchant
F. D. Morgan
V. E. Skoog
L. H. Young
R. L. Schroeder

Robert Shotwell

CAG:dh fn

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

May 17, 1971

Oregon State Highway Department
1101 N. Russell Street
Portland, Oregon 97227

Attn: Robert E. Shotwell, Resident Bridge Engineer

Re: East Fremont Interchange
O.S.H.D. Contract No. 7312

Dear Sirs:

With reference to section 8-8, "Increase in time for performance of Contract", of the Standard Specifications, we respectfully request that the time for completion on Contract No. 7312 (Unit "C") be extended to coincide with contract 7310 and 7311 (Units A and B).

In that Unit C is an integral part of the total three contracts, as far as availability to traffic is concerned, and that Unit "C" will be required for access to Units A and B, during construction, thus creating a difficulty in completing some of the items until access ramps are removed, it is felt that a common completion date would definitely make for a more efficient cleanup and selling process.

An extension to a common date would also make final inspection more efficient, as all items could be finalized at one time rather than two inspections, as set up now.

Your earliest review and approval will be appreciated.

Very truly yours,

William A. Bugge
Project Manager

dj

RECEIVED
MAY 19
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

May 17, 1971

Oregon State Highway Department
1101 N. Russell Street
Portland, Oregon 97227

Attn: Robert E. Shotwell, Resident Bridge Engineer

Re: East Fremont Interchange
O.S.H.D. Contract No. 7312

Dear Sirs:

With reference to section 8-8, "Increase in time for performance of Contract", of the Standard Specifications, we respectfully request that the time for completion on Contract No. 7312 (Unit "C") be extended to coincide with contract 7310 and 7311 (Units A and B).

In that Unit C is an integral part of the total three contracts, as far as availability to traffic is concerned, and that Unit "C" will be required for access to Units A and B during construction, thus creating a difficulty in completing some of the items until access ramps are removed, it is felt that a common completion date would definitely make for a more efficient cleanup and selling process.

An extension to a common date would also make final inspection more efficient, as all items could be finalized at one time rather than two inspections, as set up now.

Your earliest review and approval will be appreciated.

Very truly yours,

William A. Bugge
Project Manager

dj

RECEIVED
MAY 19 19
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

RECEIVED
SEP 15 1971
FORM E-30 (REV. 10-69)
FOR FILING

I-405-8(22)=04
7210

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 1, 1971

SUBJECT: East & West Fremont
Contract No.'s 7214, 7310 & 7311
Zinc Paint Deterioration

To: Tom Edwards
Deputy State Highway Engr.
State Highway Building
Salem

Attached you will find a copy of a letter from Canron dated August 20, 1971 and a transmittal of this letter from Drake-Willamette dated August 27. Canron's letter requests clarification of your letter of August 16, which listed certain girders which had been determined to be "unsatisfactory" based on paint measurements. The West side Contractor, Anderson-Hannan, has received a similar letter from Canron.

Canron's letter mentions an "understanding" between them and yourself developed at a meeting held on July 21. Having no knowledge of this meeting, we are unable to comment on this "understanding" but with regard to the paint thickness readings which have been taken and upon which your letter was based, I believe the following points should be made:

(1) As of the date of the transmittal of the paint thickness readings to Mr. Johnson (August 9) four girders on the West and six on the East were not measured due to their inaccessibility at that time. Subsequently, those on the West side have been measured and are unsatisfactory. Those on the East have not been measured as of this writing due to access problems since they span over I-5.

(2) With the exception of some West-side readings which were taken off the Contractor's stripping scaffold, all of our readings were taken on the girder sides. The bottom flange has not been measured since it is practically impossible to reach without scaffolding. Since the girders were painted in the inverted position which allowed the curing acid to "pond" on the bottom, there is a question in our minds whether the girder side readings represent the condition of the bottom. This means that a girder with acceptable "side" readings might not have the same condition on the bottom.

(3) Essentially none of the ring beams and columns on either project have been measured due to their inaccessibility. Visually we see paint problems on the outside of these sections and they should not be automatically included as acceptable steel.

NOTED
TOM EDWARDS

SP*52475.734

(4) On the East side, we have girders with as few as two readings for paint thickness and these are located in a unit which has questionable paint (SW3, A-2, and B-2). If it is intended that these two readings per girder are to represent the paint condition of the entire girder for State's final acceptance of that paint, then we feel that more readings should be taken. We have found that this zinc paint has not been applied in a uniform enough coating that two readings for an entire girder can give a true representation of all the paint on the girder.

As mentioned above, we have no direct knowledge of Mr. Higgen's "understanding" with you; however, conversations with him have indicated that he would like to have an absolute acceptance now of all girders with satisfactory paint. In theory, there is some merit to this idea but from a practical point, it has a serious disadvantage. The paint thickness readings which you have been supplied were taken with the idea of making a cursory examination of all girders in order to zero in on the problem ones. Many girders have 10, 8, 6, 4 or only 2 readings. Proper inspection criterea would indicate that this would not be adequate information from which to base a final acceptance and these readings were not taken for that purpose.

If girders are accepted now on the basis of the readings which we have to date and if the paint subsequently rusts, the Contractors can argue that their contention that the paint is still deteriorating in Portland has been verified. If in fact the reason for this assumed subsequent rusting would be that the paint never was there and our minimal readings failed to pick this up, our position that the workmanship is faulty would be undermined. If the girder paint has to be accepted at this time, it would be our recommendation that this acceptance be based on a certain minimum number of readings per girder. Your thought of 15 readings per side (30 per girder) would be one approach to establishing a minimum.

Your clarification of this whole question of girder acceptance is solicited.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson w/attach.
Ivan Merchant "
John Howard
Robert Shotwell

RECEIVED
SEP 3 1971
OFFICE OF
STATE HIGHWAY ENGINEER

DONALD M. DRAKE COMPANY
[illegible] N.W. Flanders Street
[illegible] Oregon 97203

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS
1201 N. Loring Street
Portland, Oregon 97227

August 27, 1971

Oregon State Highway Department
1101 N. Russell Street
Portland, Oregon 97227

Attention: Robert E. Shotwell, Resident Engineer

References: East Fremont Interchange
OSHD Contract No. 7310 and 7311
Zinc Primer Deterioration

Gentlemen:

[illegible] are two (2) copies of Canron, Limited's letter of August 20, [illegible] Willamette, Joint Venturers regarding inorganic zinc [illegible] deterioration..

Your attention is specifically called to the last paragraph wherein Canron requests confirmation regarding extent of their liability for repairs subsequent to Mr. Edwards' letter of August 16, 1971, wherein he listed certain girders "which have unsatisfactory mil thickness" (of zinc primer).

Please clarify the State's position regarding this request for determination of extent of Canron's responsibility.

Very truly yours,

John R. Gray
Project Manager

dj

Enclosures

METROPOLITAN ENGINEER
RECEIVED
AUG 31 1971
ME AME AMC MOE MDE MTE

RECEIVED
AUG 30 1971
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

August 20, 1971
Our Reference: 4900/5000/4

Andersen Hannan
1626 N.W. 16th Avenue
Portland, Oregon

ATTENTION: MR. R. HANNAN

Dear Sirs:

RE: EAST AND WEST FREMONT
PRIMER PAINT DETERIORATION

This will acknowledge receipt of the letter from the State signed by Mr. Tom Edwards and dated 16th August 1971, setting out a list of beams determined to have unsatisfactory mil thickness.

In the letter, Mr. Edwards states that girders with 2.0 mils thickness are acceptable "subject to the repairing of erection scars, skips, holidays, and rust".

As we stated in the meeting with the State on 21st July 1971, there are many areas where there are 2 mils or more of paint existing and which are not rusting now. At the time the field painter comes to these areas between now and the end of next Spring, it may well be that a substantial portion show signs of rust. There is no argument that these areas require repair at the time they are to be vinyled. However, it is most desirable that future repair costs of such areas do not become subject of the present dispute, inasmuch as we could not be held responsible for same.

. . . 2

RECEIVED
AUG 31 1971
H.W. ANDERSEN CO.

Copy to CSHD

Copy to Ralph
& Hannan

August 20, 1971
Our Reference: 4900/5000/4

Andersen Hannan
1626 N.W. 16th Avenue
Portland, Oregon

ATTENTION: MR. R. HANNAN

Dear Sirs:

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PRIMER PAINT DETERIORATION

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. . . 2

RECEIVED
AUG 31 1971
P.A. ANDERSEN CO.

COPY TO CS HD

CANADA IRON FOUNDRY

This point was recognized by Mr. Tom Edwards in discussion subsequent to the 21st July meeting, and it is our understanding from him that based upon the State's evaluation of the exterior of the girders at this time, they would define those girders which would be acceptable now. Any subsequent repair work on these girders, other than repairs of obvious skips and holidays, would not be regarded as subject of the present dispute and we would not be involved in any costs of same. Limiting the area of dispute in this way makes good sense and is reasonable from the State's standpoint.

As you can see, a literal reading of the above mentioned 16th August letter could lead to a contradiction of the above understanding. We would be pleased if you would obtain confirmation that the understanding is still in effect.

Yours very truly,

CANRON LIMITED
WESTERN BRIDGE DIVISION

P. G. Higgins
Contracts Manager

PGH/kas

CC: R. Franzke
G. Smith - Can Test

RECEIVED
SEP 3 - 1971
FOR FILING
I 405 (1-2) 301
1310

Memo To The Files

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 1, 1971

SUBJECT: West & East Fremont Interchange
Contract No.'s 7214, 7310 & 7311
Repair of Rust Ban 193

On August 31, met with Dave Muth, Carboline's salesman, John Howard, Bob Shotwell, George Bennett and Chuck Lobaugh to discuss cleaning treatment for rust-free but low-millage Rust Ban 193 zinc which is to receive a build-up of Carbozinc 11 zinc. Had already received Carboline's written recommendation for this cleaning which specified a pressure water wash-down; however, yesterday learned from Dean Mandrell of our Lab that he felt either power-wire brushing or light sandblast was necessary to ensure 100% adherance.

It developed that Mr. Muth feels that the optimum cleaning method would be sandblasting but since he is aware of the economic and environmental problems associated with blasting, he felt that pressure washing would do an adequate job. He feels the important thing is to get rid of any "loose" material on the surface of the Rust Ban 193. Loose is the key word and the problem boils down to the question of how to determine when the "loose" is gone.

Muth, Lobaugh and I looked at examples of girders that had and had not been previously washed and Mr. Muth opined that those that had been washed were adequately clean for acceptance of a coat of Carbozinc 11. We evolved the cleaning criterea that the inspector would rub the surface several strokes with a dry rag with about the effort used in polishing a car. If there was no visible sign of this rubbing, the surface would be judged suitable for Carbozinc 11. If rubbing marks were evident, more cleaning effort would be required of the Contractor, probably by increasing the water pressure or by manual scrubbing.

Mr. Muth expressed confidence that if this criterea was followed, there would be no problem with adherance between the Rust Ban 193 and Carbozinc 11.

RECEIVED
SEP 2 1971
OFFICE OF
STATE HIGHWAY ENGINEER

R. L. Schroeder
Metropolitan Engineer

By: Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: R. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
John Jenkins
David Muth - Please review this memo and advise if you have any corrections and/or additions. ELH

SP 52475-724

RECEIVED
SEP 3 - 1971

FORM E-30X—50M—7-68

SP°23811.734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
August 30, 1971

To: MEMO TO THE FILE

SUBJECT: West Fremont Interchange
Contract No. 7214

Aug 27

A meeting was held on ~~this day~~ to discuss painting procedures for the exterior girder surfaces. Those attending were:

Ralph Hannan———————— Andersen-Hannan
John Krieter ————————Industrial Painting & Sandblasting
Mr. E. L. Hardt ————————Oregon State Highway Dept.
J. D. Howard————————Oregon State Highway Dept.
George Bennett————————Oregon State Highway Dept.
Glen Wood————————Oregon State Highway Dept.
Chas. Lobaugh————————Oregon State Highway Dept.

Use of the Carboline materials was discussed first. Ed Hardt pointed out Enjay RB 193 and RB 191 were the only zinc coating formally approved for the project. Carbo Zinc 11 is an acceptable alternate, but the request for its use should come from the contractor. Carboline should furnish a letter giving a documented history that the material can be used in the manner proposed for this project. A similar procedure should be followed for the Carboline epoxy. Ralph Hannan and John Krieter saw no problem with this request and agreed to furnish the documentation. To avoid any delays it was agreed to proceed with the use of the Carboline material while this information was secured.

Cleaning and paint application were discussed next. Preparations required to make the zinc primer acceptable for the finish coat include removal of rust, rust stain, concrete stain and repriming all areas with less than 2 mils priner thickness. Segregation of the costs for these preparations is necessary since, with exception of the concrete stain responsibility for the items is yet to be determined. The top flange of the girders is the most extensive area where all items are involved. The possibility of making separate passes for the different items was discussed. Ralph Hannan said that as of this time his stripping crew would remove concrete stain with wire bruches on the remainder of the work. John Kreiter thought the most economical and simplest procedure would be to do all the cleaning in one operation. Glen Wood and the paint foreman world asess the work both before and after completion and would agree to a percentage breakdown for rust, rust stain, and concrete stain removal. All parties agreed to give this a try.

Cleaning methods were brought up. Wire brushing was considered satisfactory in all areas acessable but sandblasting might be needed in the corners. John Krieter stated that the two methods could not be used together efficiently. The method that will do the job and is most economical all hazards considered should be selected and used throughout the span or unit. It was agreed that the paint inspector and paint foreman would make this decision after looking over the work to be done. There was some discussion on Carboline's epoxy for the bolted connections, John Krieter was requested to secure from Carboline a recommended cleaning procedure.

There was further discussion regarding thin paint areas that are not rusted. It was agreed the paint inspector would have to mark or identify them in some manner. We indicated the thin areas would be based on our paint survey. More thickness readings might be needed. We are working on the problem and should have a plan for doing the work in the near future.

This completed the subjects covered. There was no discussion on the vinyl finish. Ralph Hanman said he would pass on to Canron the results of the meeting.

John D. Howard
Res. Br. Engr.

JDH:ads

cc: E. L. Hardt
A. E. Johnson

RECEIVED
SEP 1971

RECEIVED
AUG 30 1971
FOR FILING

I-4/C-3(..2)-1
1-10

August 27, 1971

Mr. R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, OR 97303

Dear Sir:

Re: West Fremont Interchange
Contract No. 7214

East Fremont Interchange
Contract Nos. 7310 and 7311

Attached is a copy of a report by Can Test, Ltd. of Vancouver, British Columbia, concerning their investigation of inorganic zinc paint on the subject projects. The findings of Can Test indicate a possible loss of 0.6 mils during the period March through July 1971, which is the period Can Test investigated with test panels.

You have previously been given a copy of a report by our consultant, Harlan Associates, Inc. of San Francisco, California, which indicated that it was possible for the inorganic zinc to deteriorate up to 0.5 mils when exposed to the elements for a period of 6 to 12 months.

On the basis of the above reports, which we believe to be compatible, we have instructed our contractors to repair and repaint with inorganic zinc those areas on the exterior of the steel beams which now have less than 2 mils of paint. These instructions are based on the assumption that with the specified 3 mils applied at Vancouver, it is conceivable to have 2.4 to 2.5 mils at this time in Portland. We have therefore taken the attitude that we will accept from 2.0 to 2.5 mils and insist on cleaning and painting of those areas with less than 2 mils subject to repairing of erection scars, skips, holidays, and rusted areas. We verbally advised the contractors that in view of the reports by Harlan Associates and Can Test, Ltd., we would expect this repair to be done not at our expense. The contractors and steel supplier have protested this verbally. Attached are copies of letters to the contractors instructing them to repair beams which we have determined by measurement to be in need of additional paint.

RECEIVED
AUG 30 1971
FOR FILING

I-4(E-3)(-2)
1-10

August 27, 1971

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Federal Highway Administration
Post Office Box 300
Salem, OR 97303

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Reference is made at this time to your inspection reports which were furnished us under date of May 18, 1971. Your letter asked for an explanation for deviations from specifications covered in your inspection reports.

During the early part of this year, it was discovered that some of the structural beams delivered from Vancouver, B.C. were shipped with rusted areas and a deficiency of paint in certain areas. At that time, we advised the contractors that it would be necessary to clean the rusted areas and repaint with inorganic zinc to specified thickness. Prior to this problem of rusty steel, we had permitted the contractors to repair damaged inorganic zinc in the field without sand blasting preparation of the damaged areas and permitted them to clean with wire brushing. This is technically not allowed by our painting specifications; however, this change was permitted because of the substitution of Rust Ban 193 for Rust Ban 191 since the application of Rust Ban 193 does not require the high profile of sand blasting for adherence to the steel.

Since many of the beams were erected, it was necessary that the corrections be made in the field on the beams in their final location and the contractors proceeded to utilize sand blasting for cleaning purposes. Two problems resulted: (1) adjacent sound paint was damaged; and (2) sand from the operation was a problem in falling on property underneath the structures. At this time a trial was made of cleaning with power brushing, with representatives of the contractors, the State, Canron, Can Test, and Enjay Chemical Company present. We were assured by both Can Test and Enjay that the power wire brushing for cleaning was satisfactory for the application of additional Rust Ban 193 on the interior of the beams. On this basis and in order to eliminate damage to adjacent private property, we approved the use of power wire brushing.

We were also assured by both Enjay and Can Test that the removal of rust staining by hand wire brushing was a satisfactory method of preparing the surface as a preliminary to washing with detergent and high pressure water in accordance with specifications. It is to be noted at this time that the rust staining occurs from the unpainted top of beams which are not required to be painted with inorganic zinc by our specifications.

When the repairs to the rusted zinc areas were started, we felt that vinyl could be applied over zinc that had cured for 24 hours. There was a limited time when in order to expedite

the placing of forms the cure time was between 40 and 48 hours. We then changed our instructions to allow at least 48 hours of cure time. The inorganic zinc has been and is being washed with a detergent prior to placing the vinyl top coat.

Your inspection reports indicate that the vinyl top coat should be placed in a smooth uniform coat substantially free of bubbles or pinholes. This has been our objective throughout our operations. After aconsultation with your personnel, we were visited by Messrs. Ted Mowatt and Frank Sears from your Washington, D. C. office. They indicated to us that they had conversed with members of the Corps of Engineers and others and received the information that it is practically impossible to obtain a surface completely free of pinholes and bubbling. The vinyl surfaces inspected by these two gentlemen were declared to be satisfactory to them.

Paint measurements have been taken of the inorganic zinc, both on the insides and outsides of the beams, which were a basis of our instructions to the contractors to make corrections. We have proceeded on the repairs to the interior of the beams, believing that we are obtaining a satisfactory paint job, taking into consideration that the interior of the beams are sealed from atmospheric conditions and in the interest of accelerating the work in order to complete the project.

During the application of vinyl paint on the interior of the beams, we experimented to considerable degree in order to find a solution to the problem of bubbling and pinholing. We experimented with every product that Enjay Chemical Company could furnish us, including vinyl wash primer, chlorinated rubber zinc primer, and vinyl primer. A slow-drying vinyl, formula 4516, supplied by Enjay was also applied. We also experimented with paint manufactured by Carbolene Company, both with and without a carbolene thinner. During the month of April, 16 tests were made with both Enjay and Carbolene vinyls in various combinations using both single and multiple coats. In these tests, Carbolene products appeared to give the better results. However, Carbolene products did not completely eliminate the problem of minor pinholing. We have observed that in some cases the minor pinholing disappears after a period of curing.

As a result of the above tests, we have indicated to the contractors that we would be willing to eliminate the

specifications that the manufacture of the vinyl paint be the same as the manufacture of the zinc primer. Both painting subcontractors have indicated to us that if they had freedom of choice of vinyls, they would have chosen a different paint supplier. A price agreement for each project will be submitted covering this change in specifications. We have advised the contractors that if they can provide a vinyl paint which produces a better product but which results in additional cost, the State would bear this extra cost. This information was given to Mr. H. A. Schell of your office prior to advising the contractors.

We have advised the contractors to change the color of the vinyl paint from the dark green originally specified to a color known as "Celadon Green", which more nearly approaches the color of concrete and which will present a more esthetically pleasing structure. There will be minor repainting on some small areas which have already been painted with the darker green. Any such repainting work will be covered by appropriate price agreements which will be submitted to you for consideration.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms
Attachments

cc R. L. Porter
Tom Edwards
I. D. Merchant
Ed Hardt
John Howard
Robert Shotwell

OREGON STATE HIGHWAY DIVISION

(Corrected Copy)

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

August 16, 1971

Drake-Willamette Joint Venturers
1201 N. Loring Street
Portland, OR 97227

Gentlemen:

Re: East Fremont Interchange
Contracts 7310 and 7311

Based on meetings between the affected contractors, Canron, Cantest, and Harlan, we have determined that girders having a prime coat zinc covering of 2.0 mils thickness will be acceptable for covering with the final vinyl coat subject to the repairing of erection scars, skips, holidays, and rust.

A list of the beams which our measurements have determined to be unsatisfactory is as follows:

UNIT	GIRDER SECTION
SW2	A-1
SW3	A-3, 4, 6
	B-3, 4
WN1	A-2, 3, 4, 5, 6, 7
	B-3, 4, 5
NW2	A-1, 3, 4
	B-1, 2, 3, 4
WE4	A-5, 7, 9
	B-3, 4, 7, 8, 10
	C-3, 4, 7, 9, 10
	D-3, 4, 5, 6, 7, 8, 9
EW3	A-3, 5, 7, 8, 9, 10
	B-3, 5, 8, 9, 10
	C-6, 7, 8, 9
	D-3, 4, 5, 6, 7, 8, 9, 10
WS1	A-2, 3, 4, 5, 6, 7
	B-2, 3, 4, 5, 6, 7

In order that controversy involving the cost of repairs to the prime coat painting be properly adjudicated,

Form 8-123

I would suggest you arrange through John Bond, Construction Administration Engineer, to bring these matters before the Claims Review Board at your early convenience.

Very truly yours,

R. L. Porter
State Highway Engineer

By ORIGINAL SIGNED
TOM EDWARDS

Tom Edwards
Deputy State Highway Engineer

METROPOLITAN ENGINEER
RECEIVED
JUL 20 1971
ME AME AME MCE MCE MTE

CAN TEST LTD.

1650 PANDORA STREET, VANCOUVER 6, B.C. • TELEPHONE 254-7278

Report On Paint Investigation — File No. 1063 A

Report No. 32

Reported to Canron Ltd. — Date 16th July 1971

Foot of Byrne

Burnaby, B.C.

RECEIVED
DRAKE
JUL 20 1971
GD | REG | IRG | ER | GG | WES

Further to our inspections, and testing programs concerning paint application of Rust Ban 193 at Canron Plant for the structural steel destined for the Freemont Project, we report as hereunder.

A. Atmospheric Exposure Tests - Portland, Oregon - Vancouver, B.C.

On Friday, March 12th, personnel of Canron Ltd., Plant No. 2, Burnaby, B.C. prepared 34 test panels for paint testing.

These panels were approximately 6 inches x 4 inches. In the centre of each panel was a 1.5 inch diameter hole.

For test purposes the panels were shot blasted in a manner consistent with shot blasting of structural steel for the Freemont project. After blasting, the panels were painted with Rust Ban 193 by the painting crew of Canron.

After painting the panels were transported to the laboratory of Can Test Ltd. where the acid post treatment was applied with covering equivalent to 1 gallon of acid per 400 square foot of coating. One half of the panels were acid cured and the other half were left untreated.

12 panels (6 cured, 6 uncured) were retained by Can Test Ltd. Cured and uncured samples were placed in plastic bags and retained inside the laboratory for control purposes.

The remainder of the panels (22) were returned to Canron.

10 panels (5 cured and 5 uncured) were placed on a barge containing structural bridge steel which was to be shipped to the job site at Portland.

6 panels (3 cured and 3 uncured) were retained by Canron No. 2 plant for outdoor exposure to their storage area.

The final 6 panels (3 cured, 3 uncured) were sent by Canron Ltd. to O.S.H.D. Portland, Oregon for their test purposes.

Paint thickness measurements of all test panels retained by Can Test Ltd. and those dispatched to Canron for subsequent shipping to Portland and for exposure at Canron Plant No. 2 were made and recorded by Can Test Ltd. personnel on 16 March 1971.

B. Immersion Tests on Acid Cured Coatings

In an attempt to ascertain the effect on the stability of the zinc coating when acid curing was applied immediately after painting and when applied after a delayed period of time, the following tests were conducted.

Eight test panels were prepared in a manner as described in "A" above. Four panels were acid cured two hours after painting and four after two days. The panels were then subjected to continuous immersion tests in fresh water and also in sea water.

C. Effect of Acid Curing on Zinc Coatings (Rust Ban 193)

The purpose of these laboratory tests primarily was to ascertain the action of acid post treatment of Rust Ban 193. During the investigation particular attention was directed to any subsequent loss of film thickness either by chemical dissolution or by physical deterioration.

Rust Ban 193 was applied to test panels which had been blasted to white metal simultaneously with blasting of structural steel being used on this project. After cleaning a single coat of Rust Ban 193 was applied by the regular painting crew to the panels during the course of normal shop painting of the fabricated steel structure. After preparation of the panels as described above, they were transported to our Vancouver laboratory for assessment of the film after acid post treatment.

The manufacturer recommends an application of curing agent of approximately 1 gal/400 sq. ft. - this was calculated to be 0.8 cc/test area. Curing agent equivalent to $\frac{1}{2}$, 1, 2 and 4 times the recommended application level were applied to the test areas and were spread evenly over the surface with a rubber spatula.

The curing agent, applied as above, was allowed to remain in contact with the dried paint film for periods of 4, 24 and 48 hours. After these periods of time the residual curing agent was washed from the surface. After the prescribed contact time the samples were allowed to dry for 16 hours and then an additional 24 hours with thickness readings being taken after these times.

File No. 1083 A
Report No. 32
16 July 1971.

TEST RESULTS - SERIES A

Panels Exposed to Atmospheric Conditions at Job Site, Portland, Oregon

(a) Acid Cured

Panel Identification	Initial March 16	Loss of Film Thickness In Mils			
		April 21	May 26	June 23	July 15
No. 21	-	-0.1	-0.5	-0.6	-0.7
	-	+0.1	+0.2	-0.1	0
	-	+0.1	-0.5	-0.5	-0.5
No. 22 *	-	-3.0	-3.1	-3.6	-3.8
*	-	-1.3	-1.6	-1.8	-1.4
	-	+0.1	0	-0.4	-0.6
No. 23	-	+0.5	+0.5	+0.3	+0.3
	-	-0.1	-0.4	-0.6	-0.3
	-	-0.3	-0.5	-1.0	-1.0
No. 24	-	-0.3	-0.5	-0.6	-0.6
	-	+0.1	-0.2	-0.2	-0.6
	-	-0.1	-0.2	-0.7	-0.7
No. 25	-	-0.3	-0.4	-1.0	-0.9
	-	+0.2	0	-0.7	-0.8
	-	-0.6	-1.3	-0.9	-1.2
Average Loss In Mils	-	-0.05	-0.3	-0.5	-0.6

* These figures appear abnormally high and therefore they were not used in the calculation of the averages.

File No. 1063 A
Report No. 32
16 July 1971

TEST RESULTS (Con't)

Panels Exposed to Atmospheric Conditions at Job Site, Portland, Oregon

(b) Not Acid Cured

Panel Identification	Initial March 16	Loss of Film Thickness In Mils April 21	May 26	June 23	July 15
No. 26	-	-0.5	-0.5	-0.5	-0.7
	-	+0.1	+0.3	+0.5	+0.4
	-	-0.2	-0.4	-0.7	-0.7
No. 27	-	-0.1	-0.3	-0.8	-0.8
	-	+0.3	-0.6	-0.8	-0.7
	-	-0.3	-0.4	-0.3	-0.4
No. 28	-	-0.1	- 0 -	-0.1	-0.4
	-	-0.5	-0.4	-0.6	-0.5
	-	-0.3	-0.5	-1.0	-1.1
No. 29	-	-0.1	-0.5	-0.7	-0.9
	-	-0.2	-0.2	-1.0	-0.8
	-	-0.4	-0.6	-0.6	-0.5
No. 30	-	-0.5	-0.4	-0.7	-0.8
	-	-0.1	- 0 -	-0.1	-0.3
	-	-0.1	- 0 -	-0.6	-0.7
Average Loss In Mils	-	-0.2	-0.3	-0.5	-0.5

../5

TEST RESULTS (Con't)

Panels Exposed to Atmospheric Conditions at Canron Storage Area

(a) Acid Cured

Panel Identification	Initial March 16	Loss of Film Thickness In Mils April 12	May 28	July 15
No. 15	-	-0.1	-0.3	-0.4
	-	-1.4	-1.8	-1.8
	-	+0.6	+0.2	+0.1
	-	-0.2	-0.7	-0.8
No. 16	-	+0.1	- 0 -	-0.4
	-	+0.3	+0.3	+0.1
	-	+0.3	- 0 -	-0.2
	-	- 0 -	- 0 -	-0.1
No. 17	-	+0.8	+0.4	+0.4
	-	- 0 -	+0.1	-0.2
	-	+0.1	-0.2	- 0 -
	-	+0.5	+0.5	+0.5
Average Loss in Mils	-	+0.08	-0.12	Nil

../6

TEST RESULTS (Con't)

Panels Exposed to Atmospheric Conditions at Canron Storage Area

(b) Not Acid Cured

Loss of Film Thickness in Mils

Panel Identification	Initial March 16	April 12	May 28	July 15
No. 18	-	+0.5	+0.9	+0.5
	-	+0.5	+0.1	- 0 -
	-	- 0 -	-0.4	-0.7
	-	-0.4	-0.1	-0.4
No. 19	-	-0.3	-0.6	-0.8
	-	-0.3	-0.3	-0.5
	-	-0.1	+0.1	-0.1
	-	-0.3	-0.5	-0.6
No. 20	-	-0.1	-0.2	-0.4
	-	- 0 -	-0.1	-0.2.
	-	-1.0	-0.8	-1.1
	-	-0.1	-0.2	-0.1
Average Loss in Mils	-	-0.13	-0.17	-0.28

Control Panels

During the period 16 March 1971 through 15 July 1971 there was no measurable change in coating thickness in either the cured or uncured samples stored in plastic bags.

../7

TEST RESULTS - SERIES B

(I) Fresh Water Immersion (STP)

(a) Acid Cured Two Hours After Painting

Panel Identification	Initial April 21	Loss of Film Thickness in Mils: May 13	June 14	July 15
Panel A	-	-0.3	-0.1	-0.1
	-	-0.7	- 0 -	-0.6
	-	-0.5	-0.3	-0.7
Panel B	-	-0.6	-0.5	-0.4
	-	-1.2	-0.8	-1.0
	-	-1.5	-1.5	-1.5
Average Loss In Mils	-	-0.8	-0.5	-0.7

(b) Acid Cured Two Days After Painting

Panel Identification	Initial April 21	Loss of Film Thickness In Mils: May 13	June 14	July 15
Panel G	-	+0.2	+0.2	+0.3
	-	-0.2	-0.2	-0.3
	-	-0.4	-0.2	-0.1
Panel H	-	-0.4	-0.2	-0.1
	-	-0.4	-0.1	-0.1
	-	-0.2	-0-	-0.2
Average Loss In Mils	-	-0.3	-0.15	-0.1

File No. 1063 A
Report No. 32
16 July 1971

TEST RESULTS - SERIES B (Con't)

(ii) Sea Water Immersion (STP)

(a) Acid Cured Two Hours After Painting

Panel Identification	Loss of Film Thickness In Mils			
	Initial April 21	May 13	June 14	July 15
Panel C	-	-0.1	- 0 -	-0.3
	-	-0.3	-0.2	-0.4
	-	+0.2	-0.2	+0.3
Panel D	-	- 0 -	-0.1	+0.2
	-	-0.1	+0.2	-0.1
	-	-2.9*	-3.0*	-3.2*
Average Loss In Mils	-	Nil (-0.06)	Nil (-0.06)	Nil (-0.06)

* These figures abnormal and therefore they were not used in calculation of average.

(b) Acid Cured Two Days After Painting

Panel Identification	Initial April 21	May 13	June 14	July 15
Panel I	-	- 0 -	+1.1	+0.8
	-	-0.5	+0.1	-0.3
	-	-0.1	+0.1	+0.5
Panel J	-	-0.3	+0.2	+0.2
	-	+1.0	+1.5	+1.5
	-	+0.2	+1.5	+1.1
Average Loss In Mils	-	-	-	-

• Results not considered significant due to apparent increase in film thickness probably due to build up of salts on surface.

File No. 1063 A
Report No. 32
16 July 1971

TEST RESULTS - SERIES C

Amount of Acid Cure Added	4 Hours	24 Hours	48 Hours
	(Thickness In Mils)		
½ gal/400 sq. ft.			
Initial	2.2	2.5	2.5
After application	2.3	2.3	2.3
After 16 hr	2.2	2.3	2.4
After 40 hr	2.2	2.3	2.4
Net Effect	nil	nil	nil
1 gal/400 sq. ft.			
Initial	2.1	2.7	2.6
After application	2.0	2.6	2.0
After 16 hours	2.0	2.5	2.3
After 40 hours	2.0	2.5	2.4
Net Effect	-0.1	-0.2	-0.2
2 gal/400 sq. ft.			
Initial	2.3	3.0	3.5
After application	2.3	2.2	2.9
After 16 hr	2.3	2.2	2.8
After 40 hr	2.3	2.2	-
Net effect	nil	-0.8	-0.7

4 gal/400 sq. ft.

Thickness measurements taken in this series are not absolute or meaningful because after acid treatment all films had swollen, were powdery, and could easily be removed by light mechanical scraping.

../10

Half Recommended Acid Application (½ gal/400 sq. ft.)

Application of the curing agent in this series of tests had no apparent adverse effect on the paint film.

Full Recommended Acid Application (1 gal/400 sq. ft.)

Application of curing agent in this series of tests also had no apparent adverse effect on the paint film.

Twice Recommended Acid Application (2 gal/400 sq. ft.)

A visual examination of the surface after application of the curing agent revealed the surface to be marred with small blisters which could easily be broken by finger tip pressure. In addition there appeared to be some flaking of the dried film.

Fourfold Recommended Acid Application (4 gal/400 sq. ft.)

Application of four times the recommended amount of the acid curing agent results in an essential total deterioration of the dried film, ie, cracking, lifting and flaking. (See Appendix 1)

REMARKS

From a review of the above observations and test results it is established that:

1. Rust Ban 193 is a sacrificial inorganic zinc coating.

2. From the exposure tests it was shown that coating losses are to be expected when coated steel is stored open to the atmosphere.

3. When coated test panels were stored under continuous immersion conditions in fresh water the rate of film thickness loss was significant. From this it may be reasoned that heavy rain an/or high humidity would result in substantial film losses.

../11

4. The coating exhibited good resistance to still sea water.

5. During acid post treatment application of too much acid would have an adverse effect on the coating, ie twice recommended strength caused blistering and four times recommended strength caused serious deterioration of the coating. It is noted that during acid post treatment some areas of the coating may be expected to receive excessive acid, ie due to runs, sags, over spray, etc.

6. Panels exposed for a period of 4 months, March through July 1971, at the Portland, Oregon job site had a loss of film thickness amounting to 0.6 mils. It was noted that the atmospheric attack on the coating was much more severe in Portland than in Vancouver. The reason for this is not known but many factors would influence this condition - temperature, rainfall, humidity, p.H., and the presence of some gases such as sulphur dioxide, chlorine, etc.

7. From the data developed in our testing it would appear that the coating does not reach a stable condition as far as film thickness loss is concerned within the period covered by the test program.

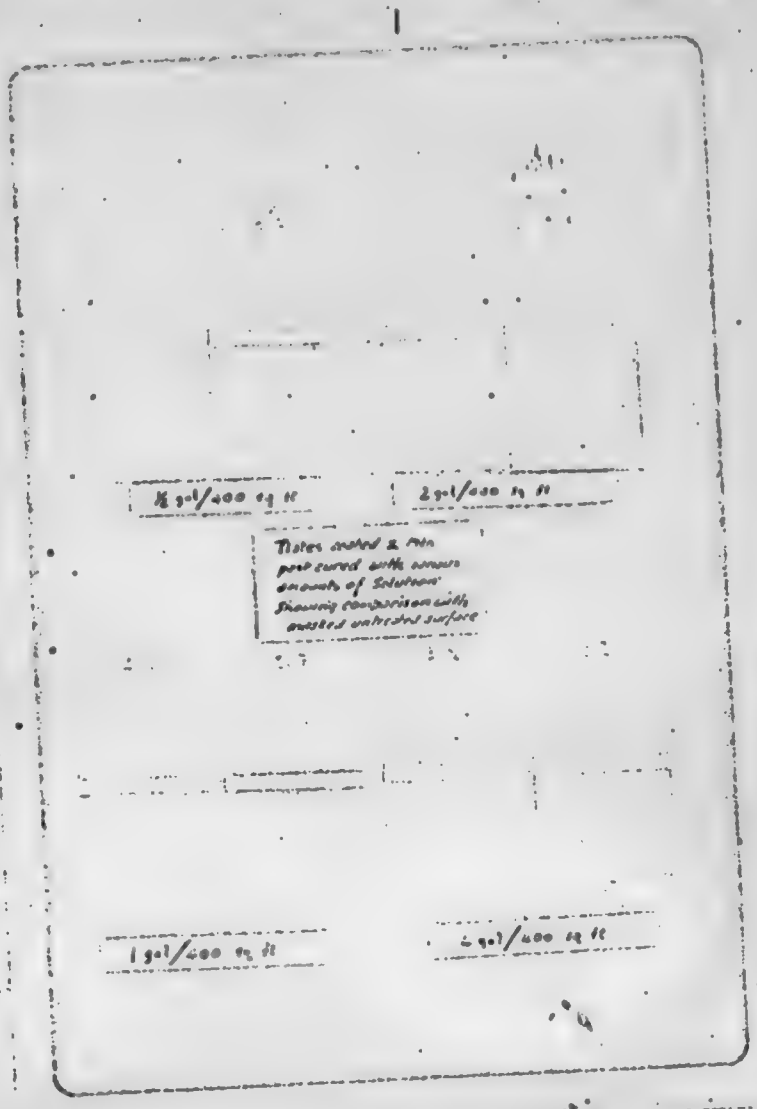
The evidence to this point indicates that it is most probable that a state of stability as far as loss of coating thickness is concerned is most unlikely to occur until it is covered by a protective seal coat.

CAN TEST LTD.

J.G. Smith

LTD.

Black marks and scratches on upper and lower portion of panels were marks used and made for Tooke Gauge Readings.


½ gal/400 sq ft
2 gal/400 sq ft
Plates coated & then post cured with various amounts of Solution showing comparison with coated untreated surface
1 gal/400 sq ft
4 gal/400 sq ft

LEGEND

Test Panels

Surface Preparation: Prepared by blasting in the same manner (in line) as steel destined for "Freemont Project", Portland, Ore.

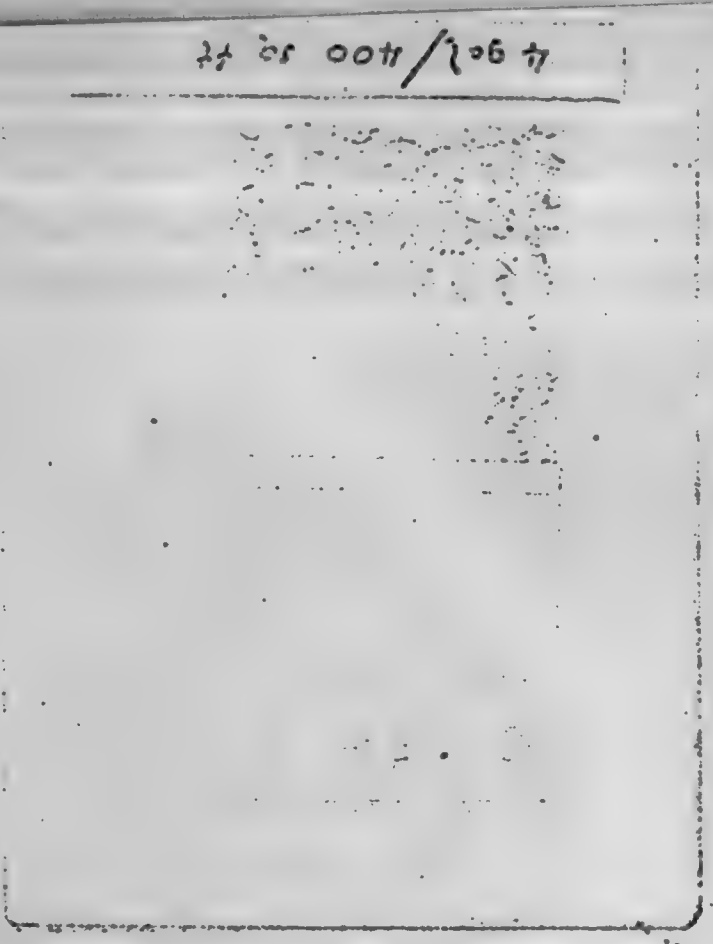
Paint Application: Coating of Rust Ban 193 applied in the same manner (in line) as steel destined for "Freemont Project", Portland, Ore.

Acid Post Curing: Panels were treated with varying amounts of acid curing agent. The acid was obtained from Cenron Ltd. and was that used for the post treatment of Rust Ban coatings for the "Freemont Project".
Acid was applied over one half surface area of each panel and spread evenly over the entire surface with a rubber spatula. Acid was applied over lower half of each panel.

Series 1: Acid applied equivalent to ½ gal/400 sq. ft. (One half recommended application).

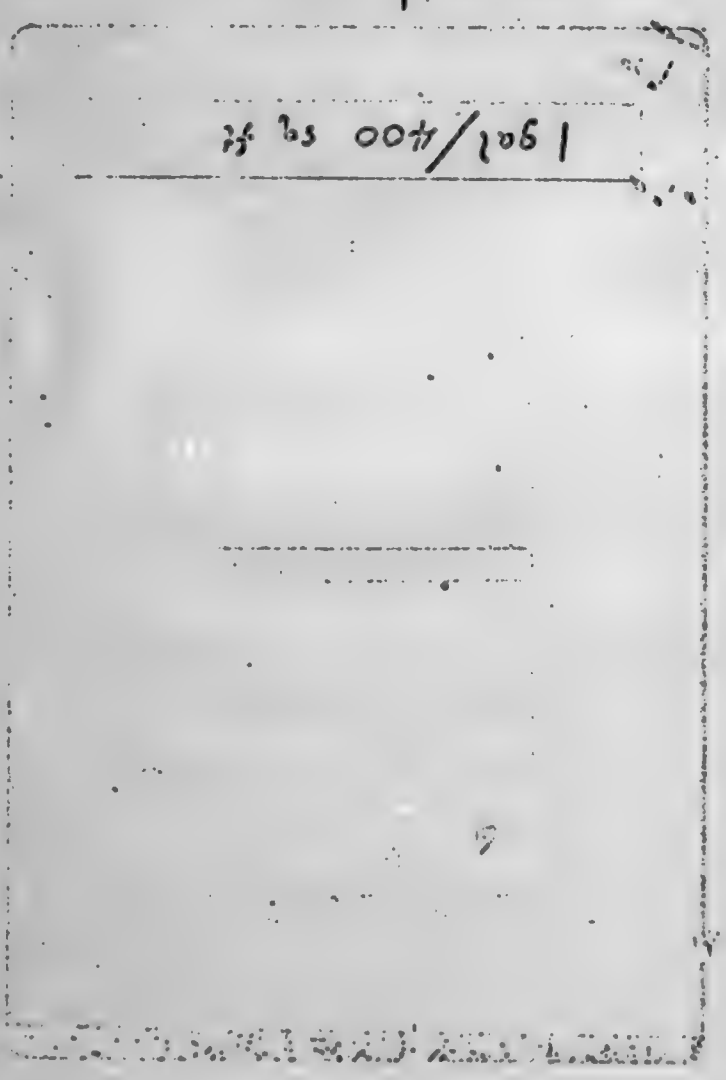
Series 2: Acid applied equivalent to 1 gal/400 sq. ft. (Recommended application).

Series 3: Acid applied equivalent to 2 gal/400 sq. ft. (Twice recommended application).

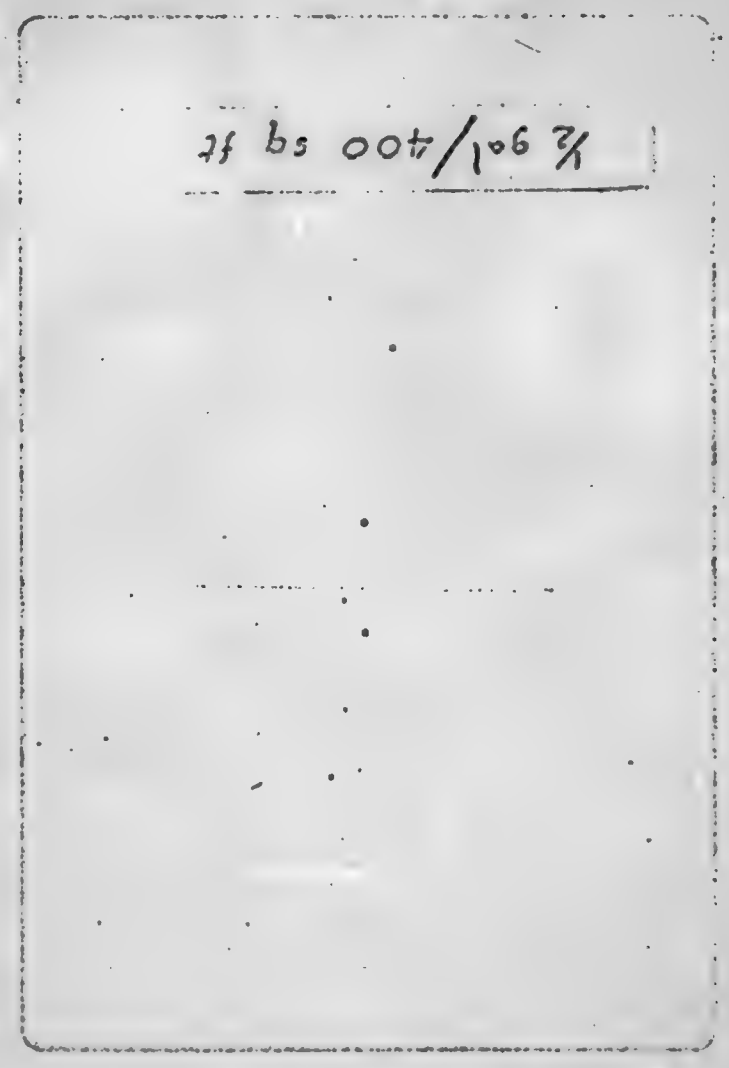


4 901/400 sq ft

½ 901/400 sq ft



1901/400 sq ft



T

RECEIVED
AUG 19 1971

F[illegible] Interchange
Contract 7310

SUMMARY OF STRUCTURAL STEEL MEMBERS THAT HAVE BEEN RED-TAGGED BY PITTSBURGH TESTING LABORATORY BECAUSE OF PAINT DEFICIENCIES

I-405-8(22)304
7310

1. Report No. 3, dated 10/14/70, Canron, Ltd.

B = Rust-Ban 193 on splice plates not approved

Component No.	Remarks
Girder GA1	B
" GB1	B
" GA2	B; Soft coating on girder; post cure used; part A liquid used
" GB2	B
" GA3	B
" GB3	B
" GA4	B
" GB4	B
" GA5	B
" GB5	B
Floor Beams (31)	B
MAS Plates (11)	Paint was coming off
Shear Key Stiff	" " " "

2. Report No. 4, dated 11/3/70, Canron, Ltd.

D = Rust-Ban 191 powder - 193 liquid - 6851 accelerator
G = No post cure on touch up due to rain
H = Final touch up not complete due to rain

Component No.	Remarks
Girder GB3	D
" GA4	D
" GB4	D
" GA5	D
" GB5	D, G
" GA6	H
" GB6	G
" GA7	D, G
" GB7	D, H
Floor beams (12) & Stringers (11)	Paint touch up done over accelerator and without accelerator over

3. Report No. 5, dated 11/10/70, Canron Ltd.

Component	Remarks
Floor beams (4)	Paint flaking off edges

4. Report No. 42, dated 3/16/71, Canron Ltd.

The components shown below were red tagged because they underwent a non-approved procedure: Rust-Ban 193 and post cure accelerator 6851 applied; found to have deficient mil coverage; components hosed down to remove accelerator and another coat of Rust-Ban 193 applied; inspector thought not all of accelerator had been removed.

Girders		Ring Sections	
A2Q	A4J	11EQ	11IP
B2Q	B4J	11AQ	3FR
BJ6	D2Q	10AQ	10BQ
AJ6	A3J	11JP	A4J
C2Q	A5J	11LP	11PQ
A7J	B5J	11CQ	11KP
B2J	B3J	11BQ	11HP
B7J	A2J	1HR	1FR

RECEIVED
AUG 25 1971
FOR FILING

I 405-8(22)-E4
7510

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

18 August 1971

Our File: P-5711

State of Oregon
Department of Transportation
138 State Highway Vuilding
Salem, Oregon 97310

Attention: Mr. A.E. Johnson, Assistant State Highway Engineer

Gentlemen:

Please find enclosed our Invoice No. 017591 covering the work completed under our report dated 30 June 1971 and conference of 21 July 1971 in Portland.

Respectfully submitted,

H. R. Harlan Jr.

Harold R. Harlan Jr., Technical Director

HARLAN ASSOCIATES, INC.

HRHJr:mp
Orig. only
Enclosure

8-24-71 Received
Asst. State Highway Engr.

Invoice Approved for Payment
Charged to 626-1011-900-$1104.25
626-1017-900-$104.75

8-24-71 Jr. Harlan cpy Sylvia Hart Steve Ed. Hart

AFFILIATIONS: National Paint, Varnish and Lacquer Association . . . Federation of Societies for Paint Technology . . . American Chemical Society . . . American Society for Testing and Materials . . . American Institute of Chemists . . . Air Pollution Control Association . . . American Oil Chemist's Society . . . Forest Products Research Society . . . International Science Foundation . . . Technical Association of the Pulp and Paper Industry . . .
Registered Chemical Engineer, State of California

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

TO: Oregon State Highway Department
138 State Highway Building
Salem, Oregon 97310

DATE: 18 August 1971

INVOICE NO: 017591
(page 1 of 2 pages)

This invoice covers work completed to date including conference of 21 July 1971 in Portland, Oregon and our Report dated 30 June 1971 with regard to Inorganic Zinc Tests, as authorized by Mr. A. E. Johnson, Assistant State Highway Engineer.

Laboratory tests (our report dated 30 June 1971):	
Control tests: panel preparation and film thickness measurements, 3 hours @ $40.00/hour:	$120.00
Weathering by acceleration:	
Panel preparation and film thickness measurements, 3 hours @ $40.00/hour:	120.00
1200 panel hours accelerated weathering @ $0.30/panel hour:	360.00
Water Spray:	
Panel preparation and film thickness measurements, 3 hours @ $40.00/hour:	120.00
Water spray exposure, 3 panels @ $50.00/panel:	150.00
Cold Water Spray and Storage Cycling:	
Panel preparation and film thickness measurements, 3 hours @ $40.00/hour:	120.00
Cold Water Cycling exposure, 3 panels @ $60.00/panel:	180.00
Salt Fog Exposure:	
Panel preparation and film thickness measurements, 3 hours @ $40.00/hour:	120.00
Salt Fog Exposure, 750 panel hours @ $0.25/panel hour:	187.50

Continue to Page 2

AFFILIATIONS: National Paint, Varnish and Lacquer Association . . . Federation of Societies for Paint Technology . . . American Chemical Society . . . American Society for Testing and Materials . . . American Institute of Chemists . . . Air Pollution Control Association . . . American Oil Chemist's Society . . . Forest Products Research Society . . . International Science Foundation . . . Technical Association of the Pulp and Paper Industry . . .
Registered Chemical Engineer, State of California

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

TO: Oregon State Highway Department
138 State Highway Building
Salem, Oregon 97310

DATE: 18 August 1971

INVOICE NO: 017591
(Page 2 of 2 pages)

Report dated 30 June 1971, 4 hours @ $40.00/hour:	$160.00
Conference in Portland, 21 July 1971, One day @ $400.00/day:	400.00
Expenses (ticket enclosed):	122.00
Miscellaneous (phone conversations)	50.00
	$2209.50

8-24-71
Asst. State Hwy Engr.

chg: 626-1011-900 - $1104.75
626-1017-900 - 1104.75

Our File: P-5711
HRHJr:mp
Orig. & 2cc

-2-

RECEIVED
AUG 23 1971
OFFICE OF
STATE HIGHWAY ENGINEER

AFFILIATIONS: National Paint, Varnish and Lacquer Association . . . Federation of Societies for Paint Technology . . . American Chemical Society . . . American Society for Testing and Materials . . . American Institute of Chemists . . . Air Pollution Control Association . . . American Oil Chemist's Society . . . Forest Products Research Society . . . International Science Foundation . . . Technical Association of the Pulp and Paper Industry . . .
Registered Chemical Engineer, State of California

RECEIVED
PORTLAND
JUL 1972
7310

August 12, 1971

Mr. William J. Ritchie
District Director of Customs
Treasury Department
U.S. Customhouse
Portland, OR 97209

394

Re: Your File ADM-2-DCV

Dear Mr. Ritchie:

In line with your inquiry of July 22 and our conference with Mr. Dwyer of your office on August 3, I am enclosing a tabulation which represents our estimate of cost of the so-called assist items chargeable to the structural steel for the Fremont Bridge approach complex.

If I can furnish you any additional information, please do not hesitate to call.

Very truly yours,

R. L. Porter
State Highway Engineer

By

Tom Edwards
Deputy State Highway Engineer

Attachments

bc R. L. Porter
A. E. Johnson
Ivan Merchant

CAG:ag ja

	INITIALS	DATE
PREPARED BY	[illegible]	8-4-71
APPROVED BY Ck	PWW	8-4-71

Fremont Bridge
East and West Approach Complex
Anderson-Hannan-W. Fremont C# 7214
Drake-Williamette - E. " C# 7310, 11, 12

LINE No.			(1)	(2)	LINE No.
1		Contract 1/2 cost of final			
2		design work done by			
3		H N T & B			
4					
5		C# 7214 W. Fremont - less contract		18549194 ✓	
6		" 7310 E " " "	12665900 ✓		
7		" 7311 " " " "	8324227 ✓		
8		" 7312 " " " "	1731551 ✓	22721678 ✓	
9			22721678		
10		Total		41270872 ✓	
11					
12		Cost of Design Contract Items		1111000 ✓	
13		HNTB Acct. 31W167			
14		% chargeable to each			
15					
16		W 18,549,194 ✓ = 45% ✓ x 1,111,000		499950 ✓	
17		41,270,872			
18					
19		E 22,721,678 ✓ = 55% ✓ x 1,111,000		611050 ✓	
20		41,270,872			
21					
22		Contract Cost of ~~Engineering~~			
23		Eng. Est.			
24		C# 7214 Sidlaw-Hume-Cs	9,462,105 ✓	= 51% ✓ of Contract ✓	
25		7310 " " " -33	10,652,642 ✓		
26		7311 " " " -75	6,387,37[illegible] ✓		
27		* 7312 " " " -65	2[illegible] ✓		
28			17,2[illegible] = 76% ✓	of Contract	
29					
30		* This furnished by			
31		Portland Gas Comp.			
32		** Equal to Contract Items by Est.			

FORM P 54 (GREEN), P 502-B (BUFF) — Bucks Blue Systems CELINA, OHIO DALLAS LOS ANGELES — LITHO IN U.S.A.

	INITIALS	DATE
PREPARED BY		
APPROVED BY		

LINE NO.			(1)	(2)	LINE NO.
1					1
2		Contract cost of imported			2
3		structural steel - By Contr.			3
4		C # 7214 Item #65	9,462,105 /		4
5		7310 " #33	10,652,642 /		5
6		7311 " #75	6,389,378 /	17040040 -	6
7			17,040,020		7
8		Amt of design & working			8
9		dwg cost chargeable to			9
10		imported structl			10
11		C # 7214 51% of 49,250 / =		25497 /	11
12		1310&11 76% of 611,250 / =		4 : 4398 /	12
13		Add HNTB cost to			13
14		check shop dwgs:			14
15		C # 7214 7976 T @ 2.50 /	19940 /		15
16		7310 8078 T @ "	20195 /		16
17		7311 4370 T @ "	10925 /	51060 /	17
18		Add State cost to			18
19		inspect steel			19
20		C # 7214 7976 T @ 13.50 /	107676 /		20
21		C # 7310&11 12448 @ 14.87 /	185102 /	292778 /	21
22					22
23		Total Est Assist Costs		1063211 /	23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32					32

TREASURY DEPARTMENT
BUREAU OF CUSTOMS
PORTLAND, OREGON

July 22, 1971

REFER TO
ADM-2-DCV

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Attention: Mr. R. L. Porter
State Highway Engineer

Gentlemen:

This office has had several current importations of steel bridge structures used in building the Fremont bridge in Portland. These shipments have been imported from Canron Limited, Western Bridge Division, Vancouver, Canada, for Anderson-Hannon and Drake Willamette, both of Portland, Oregon.

Kindly note an enclosed copy of your letter of November 23, 1970, to Canron Limited, wherein you furnish Canron with the costs for the bidding plans and specifications for the Fremont bridge.

In order for the U.S. Customs to properly appraise these importations of bridge structures from Canada, further information is urgently needed by this office on all the assists costs involved in the production of these bridge parts. This means primarily the costs for engineering, work, and development, which were incurred in creating the plans for the imported bridge structures.

If you have any questions on this inquiry, kindly contact this office, or if you prefer, arrange an appointment for a representative of this office to visit you.

Sincerely,

William J. Ritchie

WILLIAM J. RITCHIE
District Director

Enclosure

8/3
Mr Dwyer

RECEIVED
JUL 2[illegible] 1971
OREGON
STATE HIGHWAY COMMISSION

REPLY TO: DISTRICT DIRECTOR OF CUSTOMS, U.S. CUSTOMHOUSE, PORTLAND, OREGON 97209

OREGON STATE
HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

RECEIVED
NOV 27 1970
CANRON
WESTERN BRIDGE DIVISION

49/00/5906/18

Greyhle R. McL?
Copy to Hilde...
with the Resolution
Copy to file

November 23, 1970

Canron Limited
Western Bridge Division
145 West First Avenue
Vancouver 10, B. C.
CANADA

Attention P. G. Higgins, P. Eng.
Contracts Manager

Gentlemen:

West Fremont Interchange Section
East (Unit A & Unit B) Fremont Interchange Secs.

The information requested in your letter of November 17, 1970, is as follows:

The Division does not keep records on the cost of producing bidding plans and specifications for each individual job. The Division charges a flat fee of $5 per set regardless of the size of the job.

On the West Fremont project we issued 18 sets of bidding plans and specifications and 102 sets of informational plans and specifications.

On the East Fremont job, Unit A, we issued 10 sets of bidding plans and specifications and 90 sets of informational plans and specifications.

On East Fremont, Unit B, we issued 13 sets of bidding plans and specifications and 109 sets of informational plans and specifications.

On East Fremont, Unit C, we issued 15 sets of bidding plans and specifications and 69 sets of informational plans and specifications.

RECEIVED
JUL 23 1971
OREGON
STATE HIGHWAY COMMISSION

Very truly yours,

R. L. Porter
State Highway Engineer
By Ivan D. Merchant
Ivan D. Merchant
Bridge Engineer

CAG:dh

RECEIVED
SEP 17 1971
FOR FILING

I 40-R(22)BC4
7-10

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
August 9, 1971

To: A. E. Johnson
Ass't. State Highway Engineer
State Highway Building
Salem

SUBJECT: East Fremont Interchange
Units A & B
Contract No.'s 7310 & 7311
Zinc Paint Thickness
Readings-Outsides of Girders

Attached you will find 12 xerox sheets of tabulated outside-of-girder zinc paint thickness readings for the subject project together with one sheet which summarizes this data.

These readings have been taken by Bob Shotwell's crew using both the Tooke and the banana gage. Some readings were taken on the ground before erection, and the balance in the air by hanging over the side of the girders. The tabulations are by "girder section" which is a piece of girder as manufactured. Generally it takes three "girder sections" to make up two girder spans, pier-to-pier.

These readings show there are possibly 83 girder sections (equivalent to about 56 girders) with an appreciable number of readings showing less than 2 mils. These girders are in units SW-2, SW-3, WN-1, NW-2, WS-1, WE-4 and EW-3. Please note that the number of readings taken in units SW-2 and SW-3 is very small. Since these units had some girders with low outside readings and, particularly since these units had rusty interior surfaces which required repair, additional outside readings should be taken to confirm the outside film thickness.

As to how to use the readings which have been taken for making repairs, I believe they should be used as a guide as to which girders to examine more thoroughly. This examination would most reasonably be done at the time the repairs are made, when the Contractor's equipment is available for access.

If further information or details are desired, please advise.

R. L. Schroeder
Metropolitan Engineer

By: Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
Encs
cc: Ivan Merchant w/attach.
Robert Shotwell "
John Howard "

SP*92475-784

OREGON STATE HIGHWAY DEPARTMENT

TABULATION SHEET

SHEET ..... OF ..... SHEETS

EAST [illegible] INTERCHANGE

ZINC RICH PRIMER PAINTING ON OUTSIDES OF GIRDERS

UNIT	[illegible]	LESS THAN 1	1-2 THAN 2	OVER THAN 2		0/0 1-2 THAN 2	OVER THAN 2	
WS-2	61	0-0%	0-0%	61-100%	OK			✓
SW-2	89	0-0%	5-6%	84 94%	OK			✓
SW-3	56	0-0%	10-18%	46-82%		54%		✓
[illegible]	47	0-0%	0-0%	52-100%	✓			
[illegible]	51	0-0%	0-0%	32-100%	✓			
NW-3	37	0-0%	0-0%	37-100%	✓			
[illegible]	57	0-0%	0-0%	57-100%	✓			
[illegible]	56	0-0%	0-0%	56-100%	✓			
NW-1	75	1-1%	34-45%	40-53%		92%		✓
[illegible]	50	0-0%	0-0%	50-100%	✓			
NE-2	87	0-0%	26-31%	55-69%				✓
NW-5	19	0-0%	0-0%	19-100%	✓			
NE-1	212	28-7%	155-40%	219-53%		7.1%		✓
SW-1	107	0-0%	7-2%	105-98%	✓			
NE-1	334	5-1%	114-34%	215-65%		55%		✓
[illegible]	301	0-0%	1-1/3%	342 99 1/3	✓			
SW-3	277	0-0%	66-24%	213-76%		31%		✓
SW-4	230	0-0%	0-0%	230-100%	✓			

Form E-107 Exterior

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 1 OF 4 SHEETS

Zinc Primer Thickness in Percent by Girder

(Girder is splice plate To splice plate)

E-I Expansion
Unit B
9/6/71
Cinderough Exterior

Unit	Girder	No. of Readings	0 To less than 1 mil	%	1 To less Than 2	%	2 mils and over	%
WS-2	All	61	0	—	0	—	61	100%
SW-2	A-1	6	0	—	1 ✓	17%	5	83%
	A-2	6	0	—	0	—	6	100%
	A-3	6	0	—	0	—	6	100%
	A-4	6	0	—	0	—	6	100%
	A-5	3	0	—	0	—	3	100%
	A-6	7	0	—	0	—	7	100%
	A-7	6	0	—	3 ✓	50%	3	50%
	B-1	6	0	—	0	—	6	100%
	B-2	6	0	—	0	—	6	100%
	B-3	8	0	—	1	12%	7	88%
	B-4	6	0	—	0	—	6	100%
	B-5	8	0	—	0	—	8	100%
	B-6	4	0	—	0	—	4	100%
	B-7	6	0	—	0	—	6	100%
Total for SW-2		89	0	—	5	6%	84	94%
SW-3	A1	Not accessible at this time.						
	A2	2	0	—	0	—	2	100%
	A3	6	0	—	3 ✓	50%	3	50%
	A4	4	0	—	1 ✓	25%	3	75%
	A5	3	0	—	1 ✓	33%	2	67%
	A6	2	0	—	2 ✓	100%	0	0%
	B1	"			at this	Time.		

Form B49x

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 2 OF 4 SHEETS

E.B. + E.B. - Interior

				1½" of		2+½"		1+½"		2"	
	Unit		Girder	Fillet		Fillet	%	Fillet	%	Conc.	%
	SW3	(-)	F2			0	—	0	—	7	100%
			F3	8		0	—	2	25%	6	75%
		4	F4	6		0	—	1	17%	5	83%
			F5	6		0	—	0	—	6	100%
			F6	8		0	—	0	—	8	100%
	E-1	-3		56		0	—	10	18%	46	82%
	W-1		A1	52		0	—	0	—	52	100%
	WE2		All	22		0	—	0	—	22	100%
	WE3		All	37		0	—	0	—	37	100%
	EW1		All	57		0		0		57	100%
	EW2		All	56		0		0		56	100%

Form 8-6x

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 3 OF 4 SHEETS

East Fremont Interchange
Ur - B.

E. Mercer
3 6'

Unit		Sinker	No. of Points		0 to 1 ft. Inc.	%	1 to 2 ft. Inc.	%	2 ft. & over	%
WN1		A1	Not	accessible	at	this	time.			
		A2	7		0	—	2	29%	5	71%
		A3	14		0	—	8	57%	6	43%
		A4	5		0	—	2	40%	3	60%
		A5	4		0	—	2	50%	2	—
		A6	2		0	—	2	100%	0	—
		A7	8		0	—	3	33%	5	62%
		B1	Not	accessible	at	this	time.			
		B2	Not	accessible	at	this	time.			
		B3	16		0	—	10	77%	6	37%
		B4	9		1	11%	3	33%	5	56%
		B5	6		0	—	2	33%	4	67%
		B6	4		0	—	0	—	4	100%
		B7	Not	accessible	at	this	time.			
Total for WN1 =			75		1	1%	34	46%	40	53%
WN2		All			0	—	0	—	50	100%
WN3		A1	8		0	—	3	38%		
		A2	4		0	—	0		4	
		A3	6		0	—	1	17%		
		A4	10		0	—	7			
		A5	12		0	—	2			
		B1	3		0	—	3			

Form E40x

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 4 OF 4 SHEETS

East Fremar Interchange
I-5

E. Merson
8/6.71.

Unit		Girder	Reading		No. of Holes	%	No. of Holes +or 2.	%	No. of Holes 2nd over.	%
NW2	(cont.)	B2	6		0	—	4	67%	2	33%
		B3	4		0	—	1	25%	3	75%
		B4	6		0	—	3	50%	3	50%
		B5	15		0	—	2	13%	13	87%
Total for	NW2		85		0	—	26	31%	59	69%
NW3		A11	44		0		0		44	100%

Form E-10x Revised 1-1-57

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 1 OF 6 SHEETS

Zinc Primer Thickness in Percent by Girder
(Girder is Splice Plate to Splice Plate)

Fair Grant
1-12
8-6-11
HV Harris

Unit	Girder	No. Strips	0 to less than 1 mil	%	1 to less than 2	%	2 mils and over	%
WS-1	A-1	10	0	—	0	—	10	100
	A-2	22	0	—	5	23	17	77
	A-3	13	0	—	6	46	7	54
	A-4	15	0	—	8	54	7	46
	A-5	12	0	—	6	50	6	50
	A-6	17	1	6	9	53	7	41
	A-7	12	0	—	7	58	5	42
	B-1	10	0	—	0	—	10	100
1	B-2	18	0	—	9	50	9	50
	B-3	11	0	—	5	45	6	55
	B-4	14	0	—	7	50	7	50
	B-5	12	1	8	7	59	4	33
	B-6	12	0	—	6	50	6	50
	B-7	13	1	8	8	62	4	30
	1-DR	10	2	20	6	60	2	20
	1-ER	17	2	12	7	41	8	47
	1-FR	10	0	—	0	—	10	100
	1-GR	8	0	—	6	75	2	25
	1-HR	17	0	—	0	—	17	100
* Unable to take [illegible]	2-DR	12	4	33	6	50	2	17
	2-ER	20	3	15	7	35	10	50
	2-FR	9	0	—	6	[illegible]	[illegible]	[illegible]
	2-GR	7	0	—	3	[illegible]	[illegible]	[illegible]
	2-HR	12	0	—	6	[illegible]	[illegible]	[illegible]
	3-DR	20	3	15	6	70	[illegible]	[illegible]
	3-ER	21	4	20	11	[illegible]	[illegible]	[illegible]

Form E-10c Exterior

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 2 OF 8 SHEETS

Ex. Exterior
Unit 2
6-6-71
Hi/Harris

Unit	Girder	No. of Readings		0 to less than 1 mil	%	1 to less than 2 mil	%	2 mil and over	%
US-1	S-FR	24		0	—	1	4	23	96
	3-GK	15		7	47	5	33	3	20
Total for US		392		28	7	155	40	209	53
SW-1	A-1	10		0	—	0	—	10	100
	A-2	8		0	—	1	14	7	86
	A-3	8		0	—	0	—	8	100
	A-4	8		0	—	0	—	8	100
	A-5	8		0	—	0	—	8	100
	A-6	5		0	—	0	—	5	100
	A-7	6		0	—	0	—	6	100
	B-1	10		0	—	0	—	10	100
	B-2	8		0	—	0	—	8	100
	B-3	8		0	—	0	—	8	100
	B-4	8		0	—	0	—	8	100
	B-5	8		0	—	1	13	7	87
	B-6	6		0	—	0	—	6	100
	B-7	6		0	—	0	—	6	100
Total for SW		107		0	—	2	2	105	98
W/E-1	A-1	8		0	—	0	—	8	100
	A-2	9		0	—	0	—	9	100
	A-3	8		0	—	1	13	7	87
	A-4	6		0	—	3	50	3	50
	A-5	8		0	—	3	38	5	62
	A-6	2		0	—	1	50	1	50

Form E-87a

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 3 OF 5 SHEETS

Elk Creek
Unit 4
5-5-71
HW Prints

Unit	Girder	No. of Readings	0 to less than 1 mil	%	1 to less than 2	%	2 mil. and over	%
WE-4	A-7	2	0	—	2	100	0	—
	A-8	2	0	—	0	—	2	100
	A-9	8	0	—	3	38	5	62
	A-10	2	0	—	0	—	2	100
	B-1	8	0	—	0	—	8	100
	B-2	8	0	—	0	—	8	100
	B-3	20	0	—	11	55	9	45
	B-4	8	0	—	3	38	5	62
	B-5	6	0	—	0	—	6	100
	B-6	4	0	—	0	—	4	100
	B-7	2	0	—	2	100	0	—
	B-8	2	0	—	1	50	1	50
	B-9	6	0	—	0	—	6	100
	B-10	4	0	—	4	100	0	—
	C-1	8	0	—	0	—	8	100
	C-2	34	0	—	2	6	32	94
	C-3	20	1	5	16	80	3	15
	C-4	20	2	10	16	80	2	10
	C-5	4	0	—	0	—	4	100
	C-6	4	0	—	2	50	2	100
	C-7	2	2	100	0	—	0	—
	C-8	3	0	—	0	—	3	100
	C-9	8	0	—	4	50	4	50
	C-10	4	0	—	3	75	1	25
	D-1	8	0	—	0	—	8	100
	D-2	32	0	—	1	3	31	97

Form E48x

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 4 OF 8 SHEETS

				No. 2		0 to 1/2 in		1/2 to 1 in		1 to 2 in		2 in & over	
			Circle	Rectangle		Max. limit	%	Max. limit	%	Max. limit	%		
	WE-4		D-3	21		0	—	15	72	6			
			D-4	20		0	—	10	50	10			
			D-5	8		0	—	3	38	5			
			D-6	2		0	—	2	100	0			
			D-7	2		0	—	1	50	1			
			D-8	2		0	—	1	50	1			
			D-9	8		0	—	4	50	4			
			D-10	5		0	—	3	—	2			
						5		114		215			
	Total for WE-4			334									
	WE-5		A-1	12		0	—	0	—	12			
			A-2	9		0	—	1	13	7			
			A-3	8		0	—	0	—	8			
			A-4	8		0	—	0	—	8			
			A-6	12		0	—	0	—	12			
			A-9	6		0	—	0	—	6			
			B-1	12		0	—	0	—	12			
			B-2	8		0	—	0	—	8			
			B-3	8		0	—	0	—	8			
			B-4	8		0	—	0	—	8			
			B-5	10		0	—	0	—	10			
			B-6	8		0	—	0	—	8			
			B-7	11		0	—	0	—	11			
			B-8	8		0	—	0	—	8			
			B-9	6		0	—	0	—	6			
			C-5	8		0	—	0	—	8			

Form 249x

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 5 OF 8 SHEETS

East Approach
Unit 2
8-6-71
HW Hoffman

Unit	Girder	No. of Panels	0 to less than 1 mi	%	1 to less than 2	%	2 mi and over	%
W/E-5	C-9	6	0	—	0	—	6	100
	D-6	12	0	—	0	—	12	100
	D-9	6	0	—	0	—	6	100
	E-1	9	0	—	0	—	9	100
	E-2	8	0	—	0	—	8	100
	E-3	8	0	—	0	—	8	100
	E-4	8	0	—	0	—	8	100
	E-6	12	0	—	0	—	12	100
	F-9	6	0	—	0	—	6	100
	F-1	9	0	—	0	—	9	100
	F-2	8	0	—	0	—	8	100
	F-3	9	0	—	0	—	9	100
	F-4	8	0	—	0	—	8	100
	F-6	12	0	—	0	—	12	100
	C-3	6	0	—	0	—	6	100
	12 W7	5	0	—	0	—	5	100
	12 W7	6	—			—	6	100
	12 E7	5	—			—	5	100
	12 CL	6	—			—	6	100
	12 DL	6	—			—	6	100
	12 LT	3					3	
	12 W7	4						
	12 LT	6						
	12 W1	6					6	
	13 W1	5						
	13 CL	5						

Form, Exp.

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 6 OF 8 SHEETS

5-6-71
71 Units

	Unit	Girder	No. of Readings	0 to 1% than 1 mil	%	1 to 1½ than 2	%	2 mils and over	%
	Unit No. 5	13 DV	5					5	
		13 EV	4					4	
		14 GT	2					2	
		14 LT	7					7	
		14 RV	3					3	
		14 DV	5					5	
		14 KT	3					3	
		14 LT	5					5	
		14 EV	5	0	—	0	—	5	100
Total	for Unit No. 5		363	0		1	0+	362	100-

Form 8-05x

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 7 OF 8 SHEETS

	E13		L	3		0	—	0	—	8		
			K	6		0	—	0	—	6		
			K	6		0	—	1	17%	5		
			K	6		0	—	0	—	6		
			F	3		0	—	5	63%	3		
			L	2		0	—	0	—	2		
			K	2		0	—	1	50%	1		
			K	13		0	—	2	13%	11		
			K	22		0	—	12	55	10		45%
			A	1		0	—	1	50%	1		
		4	B	8		0	—	0	—	8		
			B	8		0	—	0	—	8		
			B	12		0	—	1	12%	11		
			F	6		0	—	0	—	6		
			E	8		0	—	3	38%	5		
			E	2		0	—	0	—	2		
			B	1		0	—	0	—	1		
			B	2		0	—	2	100%	0	—	
			B	6		0	—	2	33%	4		
			B	4		0	—	2	50%	2		
			C	8		0	—	0	—	8		
			C	6		0	—	0	—	6		
			C	8		0	—	1	13%	7		
			C	4		0	—	0	—	4		
			C	6		0	—	0	—	6		
			C	4		0	—	1	25%	3		

OREGON STATE
HIGHWAY DEPARTMENT

TABULATION SHEET
SHEET 3 OF 3 SHEETS

East Fork [illegible]

E. Fork

E. Fork

	Unit		Size	Tally		0 to 1 in.	%	1 to 1½ in.	%	1½ in.	%
	EW3		17			0	—	1	50%	1	50%
			[illegible]			0	—	1	50%	1	50%
			19	3		0	—	6	75%	2	25%
			20	2		0	—	0	—	2	100%
			21	3		0	—	0	—	3	100%
			22	4		0	—	0	—	3	100%
			23	5		0	—	4	33%	8	67%
			24	9		0	—	2	22%	7	78%
			25	5		0	—	4	67%	2	33%
			26	2		0	—	2	100%	0	—
			27	2		0	—	2	100%	0	—
			[illegible]			0	—	1	50%	1	50%
			[illegible]			0	—	1	50%	1	50%
			[illegible]			0	—	2	100%	0	—
	Dou	Ex	29			0	—	6	25%	23	75%
	EW4	All	230			0	—	0	—	230	100%

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SEP 17 1971
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I 4(5.5)(22) SC4
7211

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
August 5, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7211
East Fremont Interchange
Contract No.'s 7310 & 7311
Zinc Paint Thickness Measurements

This memo is to document meetings that were held on the site of the East and West Fremont Interchanges on July 30, and August 4. The purpose of these meetings was to arrive at an agreement between Canron who were represented by Can Test and the Oregon Highway Division with regard to the calibration and selection of paint thickness measuring tools.

The meetings held on July 30, were preliminary in nature in order to determine the type of measuring tool to be used and the procedure for calibrating same. A meeting was held at each Resident Engineer's office. Attending at the East side were Robert Shotwell and representatives of his crew, Ed Hardt, Graham Higins of Canron, Gordon Smith and Dave Timuss of Can Test and Jack Gray of Drake-Willamette. At the West side meeting were George Bennett representing John Howard, Ed Hardt, the above mentioned representatives of Canron and Can Test and Ralph Hannan representing Anderson-Hannan.

Results of the above-mentioned July 30, meetings are as follows:

1. It was agreed that the microtest magnetic gauge, commonly referred to as the banana gauge would be the instrument used for measuring zinc paint thickness on the outsides of the girders.

2. A number of paint thickness readings on a girder on the ground on the East project indicated a discrepancy between the State's banana gauge, Can Test's banana gauge and the State's earlier Tooke gauge readings with the first named instrument reading the highest and the Tooke gauge giving the lowest readings.

3. It was decided that Can Test would prepare steel plate specimens sandblasted and coated with Rust Ban 193 inorganic zinc to be used for standardization of the several gauges involved. A second meeting was scheduled for August 4, at which time these plates would be available for use and the standardization procedure developed.

This meeting was held at Bob Shotwell's office on August 4, commencing at 1:30 PM and lasting til 5 PM. Attending representing Canron was Grahan Higgins, representing Can Test Gordon Smith and Dave Timuss, representing Anderson-Hannan Ralph Hannan and John Kreiter, Jr., and representing the Highway Division Ed Hardt, Bob Shotwell, Charles Lobaugh, George Bennett, Earl Mershon and Ed Rief.

Gordon Smith presented nine steel plates, each approximately 4" by 6", of which three each had been coated with about 1¼, 2 and 2½ mils of Rust Ban 193. At four locations on each plate paint thickness readings had been taken by Can Test using a micrometer, their banana gauge and their two-prong Elcometer gauge. These readings were also presented by Mr. Smith.

A number of paint thickness readings were taken on a number of plates by Can Test using their banana gauge, by Earl Mershon using the East gauge and by George Bennett using the West Gauge. Readings were also taken by Ed Rief on these plates for his information using his own banana gauge. These readings were compared and were also compared to the previous readings which were taken by Can Test. It was found that the micrometer readings, Can Test's banana gauge and the State's West banana gauge all gave comparable readings and it was felt that Can Test's banana gauge and the State's West gauge could be used as a standard. It developed that the East gauge read consistently higher than the others and using the West gauge as a standard, a correction curve was developed for the East gauge. This correction amounts to approximately 1 mil for readings in the 2-3 mil range. Three plates each with different paint thicknesses were retained by Mr. Shdwell and Mr. Bennett for their use in checking their paint gauges for the balance of the projects.

Since it was established that the West gauge can be used without any correction factor, the readings which have been taken on the exterior of the girders can be accepted without correction, thus a status report for the West girders will be submitted post-haste to the Salem office. A similar report for the East girders will be delayed somewhat until the thickness readings for that project have been corrected according to the data which was determined as described above.

In addition to paint gauge standardization, considerable discussion prevailed during this meeting with regard to other problems generated by the inorganic zinc paint. A discussion of these follows:

1. Although considerable discussion was generated with regard to how the State should apply its paint thickness readings to the repair of the deficient zinc, unfortunately no method was put forth that was practical and acceptable to those present. One thought was explored that possibly only that zinc paint which showed rust would be repaired with the assumption that that which was not rusting was satisfactory. Mr. Smith said that he thought that zinc paint with a film thickness of 1½ mils would probably show rust. This plan would be the simplest to manage because thickness readings would not be a factor but it was not seriously considered because the State's minimum of 2 mils would not be obtained. Mr. Smith suggested that perhaps he and Mr. Hal Harlan could offer some advice after reviewing some of the girders with

deficient zinc as to the proper method of delineating the areas which needed repair. It is the writer's opinion that the only way that the State can be assured of a 2 mil paint thickness is by close scrutiny of the girders and that the only practical time to make this inspection is at the time the girders are repaired when the painter's scafolding would be available for such an inspection. The preliminary paint thickness readings which the State has already obtained could be used to single out those girders which should have further inspection.

2. The problem of separating for cost record keeping purposes the different items of work performed during girder touch up was discussed. It developed that there could be five different work items which the painter might be performing which should be separated with respect to cost. These items are:

1. Sandblasting and painting of black bolts (does not apply to the West side.)
2. Repair of thin zinc paint.
3. Removal of loose rust stain.
4. Repair of rusty edge of top girder flange.
5. Repair of erection scars.

It was generally agreed that all of this work should be done at the same time rather than make a separate operation out of each one. The only solution available was that of making an arbitrary percentage split of this work depending on the relative amount of each kind of work being done. It was also generally agreed that no matter how carefully this arbitrary split is made that someone will disagree with it.

3. The method of cleaning of rusty areas on the outside of girders, sandblasting versus power wire brushing, was discussed. It developed that there was uncertainty among those present as to how this cleaning was to be done and it was decided that this should be clarified as soon as possible so as to not hold up this operation. It is the writer's opinion that both methods should be considered- sandblasting when the sandblast equipment is being used for cleaning black bolts and for cleaning those areas, principally corners, which cannot be done satisfactorily with a power wire brush. The power wire brush can very likely be used successfully on flat areas such as the webs and bottom flanges of the girders.

4. The type of inorganic zinc to be used for repair work was discussed. Carbozinc 11 has been used the last several weeks for repair on the inside of girders and it has been noted that this paint does not set up as rapidly nor does it have as hard a surface as the Rust Ban 193. Mr. Smith questioned the use of Carbozinc 11 for outside girder repair

feeling that the Rust Ban 193, due to its superior adherance quality should be used. He suggested that this question be referred to Hal Harlan.

5. The question of responsibility for removal of rust staining was discussed. Mr. Higgins said that Canron had a letter from the State which directed them not to apply paint to the top of the top flanges of the girders and consequently they felt no responsibility for the rust stain which resulted from the rusting of the top flanges. I told Mr. Higgins that to the best of my knowledge and recollection, the State has never received anything from the Contractors formally requesting compenation for the expense of this rust stain removal. He said that he would look into this matter.

The meeting was adjourned at 5 PM.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
Drake-Willamette
Anderson-Hannan
Canron
Gordon Smith

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AUG 6 1971
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22) E. Fremont Interch. Section, 1969
30k Stadium Frwy. in Portland
#7310 (Unit A.) Folder #2

RR [redacted], [redacted], 612

CLA 3869
CLA 3926

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7310
7311
7314

OREGON STATE HIGHWAY DIVISION

I 405-8(32)804
7310

July 28, 1971

NOTED
A. E. Johnson

Mr. Ralph Mikus, Manager
San Francisco District
Pittsburg Testing Laboratories
5514 Doyle Street
Oakland, California 94608

Dear Mr. Mikus:

In reading Report No. 51, for the period July 12 thru July 17, 1971 for the Grit Blasting, Sand Blasting and Painting Inspection at Murphy Pacific Corporation, Richmond, California I noticed the following:

" A number of pieces that were painted and inspected a month ago were re-checked. The paint thickness was acceptable at that time but the vinyl has now shrunk to an unacceptable mil thickness."

I have discussed this comment with our paint chemist and he feels that the original readings must have been taken quite soon after the vinyl paint was applied. The thickness of the vinyl paint should be checked about 24 hours after the vinyl is applied to allow solvent loss. Our paint chemist states that during the period of 24 hours after the vinyl paint is applied to one month after application, there will be about 0.5 mil reduction in thickness from the 24 hour reading due to further solvent loss. This reduction in thickness is tolerable.

Please have your inspectors take the vinyl paint mil thickness readings no sooner than 24 hours after the vinyl paint is applied. This will give a more representative reading of the final film thickness on the steel.

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STATE HIGHWAY ENGINEER

Yours truly,

JOHN C. JENKINS,P.E.
Engineer of Materials & Research

by

J. E. Chidsey,P.E.
Structural Quality Control Engineer

JEC:bm
cc: A. E. Johnson
I. D. Merchant
Robert Schroeder
Robert Cunningham
Don Scott, PTL, Portland

RECEIVED
AUG 5 - 1971
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I 41.5.8(22)304
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
July 28, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Zinc Paint Reports

A meeting was held in the Metropolitan Section conference room on Wednesday July 21, 1971 at 2 PM to discussed the zinc paint investigation reports as prepared by Harlan & Associates for the State and CanTest Ltd. for Canron. Listed below are those who attended this meeting.

A. E. Johnson	OSHD
Ed Hardt	"
* Bob Shotwell	"
Charles Lobaugh	"
* John Howard	"
Alfred A. Rear	"
* Ivan Merchant	"
* R. O. Cunningham	"
* Harold Harlon, Jr.	Harlan Assoc., Inc.
Ron Owens	Klass Bros. Inc.
* Frank A. Klass	" " "
John Kreiter Jr.	Industrial Painting & Sandblasting
* John R. Kreiter	" " "
* H. A. Schell	FHWA
J. A. Smith	Can Test Ltd.
* P. G. Higgins (Graham)	Canron Ltd.
Dick Davies	" "
Bruce Johnson	" "
John R. Gray	Drake-Willamette
* W. E. Smith	" "
R. E. Grant	" "
* Frank Drake	" "
Don Blue	Enjay
Henry Hannan	Anderson-Hannan
* R. S. Everett	" "
* Ralph Hannan	" "

NOTED
R. L. PORTER

* Received a copy of this memo.

Mr. A. E. Johnson opened the meeting by reviewing the zinc paint problem to date. He mentioned that it had been agreed that after the State's and the Contractor's consultants reports were received, these reports would be discussed and any differences would be referred to arbitration. He said that both reports basically were in agreement that it could be expected that the zinc paint would show a film thickness loss of about ½ mil in a time period of six months to a year of field exposure. Harlan's report indicates ½ mil of loss and Can Test's shows 0.6 mil. He said that this being the case, the State has no choice but to take the position that the zinc paint film loss experienced on the East and West Fremont projects is not due to the paint specifications but must be due to faulty application or curing of the zinc paint. He went on to say that since there is a ½ mil thickness loss associated with this type of paint, the State will accept a film thickness of 2½ mils on the job site in lieu of the original 3 mil specification. The State's criteria then for acceptance of this paint will be a 2½ mil average with a minimum of 2 mils in isolated areas. Any paint that is less then 2 mils in thickness must be corrected and this corrective work will be done at no expense to the State.

Mr. Johnson also mentioned that the previous instructions regarding repair of rusty zinc paint by wire brushing of rusty areas only was for the inside of girders only. This repair criteria wherein the only repair work done was to rusty steel and the lack of proper thickness of zinc was not a consideration for repair applied only to the insides of the girders which will be virtually sealed from the atmosphere at the completion of the work. This type of repair will not be applicable to the exposed surfaces of the girders. He proposed that the State will continue to monitor the repair costs for the work on the outsides of the girders.

Mr. Franklin Drake inquired as to whether the State will determine the thickness of the paint now on the outsides of the girders and Mr. Johnson replied that he hoped that a method could be devised whereby the State and the Contractors agreed to the paint thickness readings which would be taken.

Mr. Smith of CanTest talked about his report as compared to the report prepared by Harlon & Assoc. He said that he agreed essentially with Harlan's findings except that his tests in the atmosphere showed a little more loss of zinc thickness than did Harlon's tests which were performed in a laboratory. He said it might be possible for the paint to lose as much as one mil in a year when exposed to the Portland environment. He said he contacted the US weather bureau and learned that the sulfur dioxide content in the air in Portland increases 3 to 4 times in the winter time compared to other times of the year. He said this is a far more corrosive atmosphere than the rural atmosphere in Vancouver, B.C. He said that neither his nor Harlan's reports could accurately predict the exact amount of zinc paint loss which would be experienced in Portland and for this reason he felt that the State should accept an average of 2 mils on the girders in Portland. Mr. Johnson replied that the State's acceptance criteria would be a minimum of 2 mils and any paint that had less than 2 mils of thickness would have to be repaired.

Mr. Smith asked Mr. Harlan about his feelings regarding tolerances for paint thickness readings. Mr. Harlon replied that he felt that whatever tolerances were applicable to the measuring instrument should be added to the minimum requirement, that is, if the minimum thickness requirement is 2 mils and the accuracy of the measuring tool is plus or minus ½ mil, then the minimum acceptable reading should be 2½ mils in order to guarantee that no thickness will be less than 2 mils.

At this point Mr. Graham Higgins requested that the meeting be temporarily recessed in order that the Canron people could assess their position. After about 20 or 30 minutes the meeting was reconvened at which time Mr. Higgins expressed his company's position as follows:

> Canron is not responsible for the zinc paint loss in Portland nor for future paint losses which they feel will occur as time elapses. They have submitted a written report on the zinc deterioration which they have supplemented with oral comments regarding the weather environment in Portland and they don't feel that the State has sufficiently considered this data. They agreed that the State and the Contractor should reach an agreement on the method of making the paint thickness measurements of the paint on the outsides of the girders.

Mr. Johnson reiterated the State's position that it is felt that the two zinc reports come to the same conclusion and that therefore, the State has no choice to ask the Contractor's to repair the deficient zinc.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

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JUL 23 1971

I 11 5-1(22)-C4
7210

Salem; Oregon
July 22, 1971

V. E. Skoog
Controller

BUILDING

East Fremont Interchange
West Fremont Interchange
Fremont Bridge

Paint Inspection by Pittsburgh
Testing Laboratory

My April 15 letter requested that any further payments to Pittsburgh Testing Laboratory in connection with the subject projects be held up until further notice.

These payments may now be released.

A. E. Johnson
Assistant State Highway Engineer

AEJ:ma
cc R. L. Porter
Tom Edwards
I. D. Merchant
F. D. Morgan
John Jenkins
R. L. Schroeder

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FORM E-30 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

RECEIVED
JUL 15 1971
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-1(82)004
7310

Portland, Oregon 97213
July 15, 1971

To: A. E. Johnson
Metropolitan Engineer
State Highway Building
Salem

SUBJECT: East Fremont Interchange
Contract No. 7310
Zinc Paint Thickness Readings

During our inspection trip of Canron's paint shop in Vancouver, B.C. in April of this year, we took a number of inorganic zinc paint thickness readings on three girder sections, freshly painted, which were stored on a barge waiting shipment to Portland. These readings were duplicated shortly after the steel arrived in Portland and again this week in order to determine if we could find any film thickness loss during this time interval.

These readings were all made by Ed Rief using the Tooke gage. In addition, each reading was independently checked in Vancouver, B.C. by PTL (Ken Peterson) and in Portland by Bill Bangert of Mr. Rief's staff. As a further check, Mikrotest gage readings were made in Portland of adjacent areas. The Mikrotest is a magnetic gage commonly referred to as the "banana" gage.

Attached you will find two sheets of data; one a summary of the Tooke readings as made by Mr. Rief and the second showing all the readings taken with both instruments.

Review of this data indicates to me the following conclusions:

(1) Within the limitations of our ability to measure zinc film thickness, we can detect no pattern of film thickness deterioration during the three month interval involved.
(2) There is a surprising correlation between the various measurements taken by the three different individuals and two different instruments.

RECEIVED
A. E. JOHNSON

This data is sent to you for your information pending our discussions with the Contractors next week on the zinc problem. If you have any questions regarding this data, please advise.

R. L. Schroeder
Metropolitan Engineer
By: Edward L. Hardt
Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: Ivan Merchant
John Howard
Ed Rief
Robert Shotwell

AP*50475.744

EAST FREMONT INTERCHANGE
Zinc Paint Thickness Readings Taken In
Vancouver, B.C. and Portland

All Readings Made By Ed Rief with Tooke gage.
All readings in mils.

Location	Original (Vanc. 4-6-71)	Portland 4-20-71	Portland 7-12-71
B5 L-1	5⁰	5⁰	5⁰
2	5⁵	5⁵	5⁵
A2 K-1	3⁰	3⁺	3⁵
2	3⁵	3⁵	4⁰
3	3⁰	3⁰	3⁵
4	6⁰	6⁵	6²⁵
A3 L-1*	5⁰	(1)5	4⁵
2*	4⁵	4²⁵	4⁰
3*	4⁺	4	3⁰
4*	3⁵	3⁵	3⁵
5*	4⁵	(1)3⁵	5⁰
6*	2⁵	2⁷⁵	2⁵
7*	3⁰	3	3⁰
8*	2⁵⁺	(2)—	2⁵
9*	3⁰	3	3⁰
B3 L-1*	4⁵	4⁵	4⁵
2*	3⁵	3⁵	3⁵
3*	5⁰	5⁰	4⁹
4*	3⁰	3⁰	3⁰
5*	3⁰	3	3⁰

* Reading area exposed to rain.
(1) Hard to read. Accelerator in cut.
(2) Unable to read. Accelerator in cut.

Form E-147—60M

OREGON STATE HIGHWAY DEPARTMENT

COLUMNAR TABULATION SHEET

EAST FRONTAGE ROAD EXAMINATION

[illegible] - VANC. B.C. [illegible]

State Printing

Location	COND.	PTL	CANYON	5-6-71 CONDITION VANC	4-30-71 IN PORTLAND					
				EVE.	WED.	AUDIO TEST	[illegible]	[illegible]	[illegible]	[illegible]
BGL 1	4°	5°		5°	4°	4°	4°		5°	4
2	5			5	6	5	4		5	5
ABL 1	3	3		3	3	3.60	3		3	3
2	4			3	3	3	4		4	4
3	3			3	3	3	3		3	3
4	6	7°		6	6	6			6	6
ASL 1	5	5°		① 5	—	4			4	4
2	4			4	5	4			4°	3
3	4		3	4	4	5			5°	3
4	3	3		3	3	4			3	3
5	4			① 3	4	5			5°	4
6	3	3		2	3	3			3	2
7	3	3		3	3-	4			3°	3
7	3	3	3	—	—	3			3	3
9	3	3		3	3	3			3°	3
BSL 1	4	4°		4	4°	5			4	4
2	3	3		3	3	3	3		3	3
3	5	5		5	3	5			4	4
4	3°		3°	3	3-	3	3		3°	3
5	3		4	3	3	4	3		3°	4

① Hard to read. Accumulation in cols

SHEET ..... OF ..... SHEETS

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FORM S-20 (REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

J-405-8(22)204
7310

Portland, Oregon 97213
July 15, 1971

SUBJECT: East Fremont Interchange
Contract No. 7310
Zinc Paint Measurements

To: A. E. Johnson
Assistant State Highway Engineer
State Highway Building
Salem

Attached you will find two sheets of xerox copies of field notes showing paint thickness readings for two girders on the East Fremont Interchange. This shows the condition of the paint on the insides of two girders which have been repaired by the wire brush method on the rusty areas. This is the data which you requested of Mr. Shotwell's office.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

Encs

cc: Robert Shotwell

RECEIVED
JUL 13 1971
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

GPO 82476-784

TEST PATTERN

GIRDER NW - B5
(INSIDE)

NOTES: 1. "R" indicates readings taken on repaired areas. (REPAIRED)

2. * indicates rust in area of reading.

3. Readings taken on 1 Ft centers along horizontal lines indicated.

Eastman Stat NW Unit 2 7-14-71		Zetaite Tailings Beam B-5 Bay 1			Whitcomb H. Harris
8" from top	4"	8" from top	8" from bot	4"	8" from bot
1.0	1.5	1.0	1.5	3.5	2.5
1.0	1.5	1.5	3.0 R	2.0	1.0
0.5	1.0	1.5	1.0	2.0	3.0 R
1.0	1.0	0.5	2.0	2.0 R	1.0
2.0	1.0	1.0	2.5 K	2.5 R	2.5
2.5	1.5	1.0	1.0 R	1.0	2.0
2.5	1.0	2.0 R	2.0 R	1.0	2.0
1.5	0.5	1.0	1.0 *	1.0	1.5
2.0	0.5	1.0	1.0 *	1.0	1.0
2.0	1.0	1.0	4.5 R	1.0	1.0
2.0	0.5	1.0 R	2.5	1.5	1.0
1.5	1.0	1.0	2.5	2.0 R	1.5 K
1.5	1.0	1.5	4.0 R	2.0	3.0 R
2.0	2.0 R	1.0		2.0	2.0

Eastman Stat NW Unit 2 7-14-71		Zetaite Tailings Beam B-5 Bay 2			Whitcomb H. Harris
8" from top	4"	8" from top	8" from bot	4"	8" from bot
3.5 R	4.0 R	2.0 R	1.0	1.5	2.5
3.0 R	1.5 *	1.0 *	1.5	1.0	1.0 *
2.5 R	2.0	1.5 *	1.0	1.0	1.5
2.0	1.5	1.0 *	1.5	1.0	1.5
3.0 R	2.0 R	2.0 R	2.0	1.5 R	2.0
3.0	2.0	2.0	1.5 *	2.0	2.5
4.0 R	1.0	2.0	2.0	2.0	2.5
2.0 *	1.5	2.5	2.0	2.0	3.0
2.0	1.5	2.0	1.5	2.0	2.0 R
2.0 R	1.0 R	1.5	2.5	2.0 *	2.0
2.0	1.5	2.5 R	2.5 R	1.0	2.5
2.0	1.5 *	1.5 R	2.0 R	2.0	3.0
1.5	1.5 *	1.5 R	2.5 R	2.0	2.5
2.0	2.0 R	2.0 R	3.5 R	3.5 R	2.0

Kinsman New Unit 2 Crane Thwaites
Beam B-5
7-14-71
W. Wellwood H. Harkins

Bay 3

24" from Top Fl.	E	8" Bot. E	5" Bot. E	E	8" from Bot Fl.
1.5	2.0 R	1.0	2.0	2.5	2.5 R
1.0	0.5	1.0	1.5	2.0	1.5 R
1.0	0.5 *	0.5	1.5	1.0 *	2.0 R
2.5 R	1.0 *	1.0	1.5	0.5 *	2.0 R
1.0	2.0 R	1.0	2.0	1.0	2.5 R
1.5	1.5	0.5	1.5	2.0 R	2.5 R
	1.5	1.0	2.0	0.5	2.0 R
1.5	0.5	0.5	2.0	1.0	2.0 R
1.5	1.0	1.0	3.0 R	1.0	2.5 R
2.0 R	2.0	2.0	1.5	1.5 R	1.5 R
1.5	1.5	1.5	2.5 R	1.5	1.5
2.0	2.5	1.0	2.5 R	1.5	1.5
1.5	1.0	1.0	3.0 R	1.5	1.5 *
1.5	2.0 R	2.0 R	3.5 R	1.0	2.0 R

Kinsman New Unit 2 Crane Thwaites
Beam B-5
7-14-71
W. Wellwood H. Harkins

Bay 4

E	4" E	5" Bot. E	5" from Bot. Fl.	E	8" from Bot. Fl.
2.0 R	0.5 R	1.5	2.5 R	2.5	3.0 R
2.5 R	1.0	1.0	3.0 R	1.0	2.0
2.0 R	1.5 *	1.5	1.5 R	1.0	1.5
2.0 R	1.0 *	1.0 *	2.5 R	1.5	1.5 *
2.0 R	1.5 *	1.5 *	2.5 R	1.5	2.0 *
3.0 R	1.5	2.0	3.0 R	2.5	2.0
1.0 R	1.5	1.0	3.0 R	2.0	2.0
1.5	1.0	1.0	2.0 R	1.5	2.0
1.0	1.5	1.0	2.5 R	1.5	2.0
2.0 R	1.5	1.5	3.0 R	2.	2.5
2.0 R	1.0	1.0	6.0 R	3.	3.
3.0 R	1.0	1.0	5.0 R	2.5	2.0
2.0 R	0.5	1.0	5.0 R	2.0	2.0
1.5 R	1.0	1.0	5.0 R	3.0	2.0
0.5 R	1.5	1.5 R	4.5 R	2.0	2.0

W. McCONNEL
H. HARRIS

NW UNIT 2 BEAM B-5
7-14-71

BAY 5

3.0 R	2.5	2.5	5.0 R	6.0 R	4.5 R
3.0 R	2.0	2.0	4.0 R	2.5	2.5
2.5 R	1.0	1.5	2.5 R	2.5	3.0
2.0 R	1.5	1.5	3.0 R	2.5	2.5
1.5 R	3.0 R	3.5 R	3.0 R	3.0 R	3.0
2.0 R	2.0 *	2.0 *	3.0 R	3.0	5.0 R
2.5 R	2.0 *	3.0	4.0 R	2.5 R	3.0 R
2.5 R	1.5	2.0	3.0 R	2.0 *	2.5 R
2.5 R	2.5	3.0	2.5 R	2.5	3.0 R
1.5 R	4.5 R	3.0 R	3.0 R	4.0	4.0 R
2.0 R	3.0	2.0	3.0 R	5.0 R	2.5 R
2.5 R	3.5 R	1.5	2.5 R	2.5	1.5
2.0 R	4.0 R	2.0 R	3.0 R	2.0	3.0 R
2.5 R	3.5 R	2.0	2.0 R	2.0	4.0 R
			2.5 R	5.0 R	4.5 R

HUSTEAD SPOT REPAIR THICKNESS
NW UNIT 2 BEAM B-5
7-14-71

W. McCONNEL
H. HARRIS

BAY 6

2.0 *	2.0	4.0 R	6.0 R	5.0 R	4.5 R
2.5 R	2.0	3.0 R	5.0 R	3.0	2.0
2.5 R	2.0	2.5	4.0 R	3.0	3.0
2.0 R	2.0	2.5	4.0 R	5.0	3.0
2.5 R	2.5	4.0 R	5.5 R	4.0	3.0
3.0 R	2.0 R	2.0 R	3.0 R	3.0	3.0 R
3.0 R	1.5	2.0 R	3.5 R	2.0	3.5 R
2.5 R	1.5	1.0	3.0 R	3.0	3.0 R
2.5 R	2.0 *	1.5 R	4.0 R	2.0	3.0 R
2.5 R	2.0	1.5 R	4.5 R	3.0 R	4.0 *
2.5 R	2.5 R	3.0 R	4.0 R	5.5 R	3.0
2.0 R	2.0 R	2.0 R	3.5 R	3.0	3.0
2.0 R	1.0	1.0 R	3.0 R	3.0 R	3.5 R
3.0 R	1.5	1.5 R	3.0 R	4.5	2.5
1.5 R	2.5 R	2.0 R	3.0 R	4.0 R	3.0

MISTEAM SPOT REPAIR THICKNESS — W. McCONNEL, H. HARRIS

NH UNIT 2 — SLAB B-5 — 7-19-71

		6"	7		
	4			3	
6" TOP FL	4	3" BOT FL	6" TOP FL	4	6" BOT FL
3.5 R	3.0	6.0 R	6.0 R	4.0	3.0
2.0	2.5	4.5 R	4.0 R	4.0	3.0
2.0	1.5	3.5 R	4.5 R	3.5	3.0
1.5	1.0	3.5 R	6.0 R	3.5	5.5 R
2.0	2.0	3.5 R	3.5 R	2.5	5.5
2.5	2.5	2.5 R	2.5	4.0	4.0

Recap

NW UNIT 2 GIRDER E-5

ZINC REPAIRED

MILS	X	No. of READINGS	=
0.5		1	0.5
1.0		5	5.0
1.5		14	21.0
2.0		49	98.0
2.5		47	117.5
3.0		45	135.0
3.5		17	59.5
4.0		16	64.0
4.5		11	49.5
5.0		9	45.0
5.5		3	16.5
6.0		5	30.0
6.5		1	6.5
		223	648.0/223 =

2.90 MIL AVG.

NW UNIT 2 GIRDER E-5

ZINC NOT REPAIRED

MILS	X	No. of READINGS	=
0.5		15	7.5
1.0		81	81.0
1.5		80	120.0
2.0		86	172.0
2.5		36	90.0
3.0		21	63.0
3.5		4	14.0
4.0		6	24.0
4.5		1	4.5
5.0		1	5.0
5.5		1	5.5
		332	596.5/332 =

1.77 MIL AVG

TEST PATTERN

GIRDER EW-09
(INSIDE)

NOTE: 1. "R" INDICATES READINGS TAKEN ON REPAIRED AREAS. (REPAIRED)

2. * INDICATES RUST IN AREA OF READING.

3. READINGS TAKEN ON 1 FT. CENTERS ALONG HORIZONTAL LINES INDICATED.

LIST BAY TOLERANCES SHT EQUIP W McCONNEL
EW UNIT 3 CIRCLE D-9 J. IRWIN
9-13-71

10" FROM TOP FL	LT WEB ℄	LT WEB 10" FROM BOT FL	LT WEB 10" FROM TOP FL	RT WEB ℄	RT WEB 10" FROM BOT FL
6.5 L	3.0 R	2.0	3.0	2.5 L	3.0 L
1.5 L	2.5	2.0	2.5	2.0	3.5 L
4.5 L	2.5	2.0	2.5	2.0	3.5 L
5.0 L	4.0 L	1.5	2.0	2.0	3.0 L
5.0	3.0 R	2.0	3.0 L	2.0	4.0 R
2.5	3.5 L	2.0	3.0	2.0	3.0 R
2.5	3.0 L	2.5	2.0	1.5	2.5
2.5	3.0 L	3.0 L	2.0	2.0	3.0
2.5	3.0 R	3.0 R	3.0 L	3.5 L	4.5 L
2.5	3.0 R*	2.5	3.0	5.0	5.0 R
2.0	2.5 *	2.0 L	2.0	4.5 L	5.0 L
2.0	2.0 *	2.5 L	2.0 *	5.5	5.0 L
3.0	2.0 *	2.5	2.5	4.5 L	5.0 L

LIST BAY TOLERANCES SHT EQUIP W McCONNEL
EW UNIT 3 CIRCLE D-9 BAY 1 J. IRWIN
9-13-71

10" FROM TOP FL	LT WEB ℄	LT WEB 10" FROM BOT FL	LT WEB 10" FROM TOP FL	RT WEB ℄	RT WEB 10" FROM BOT FL
2.0 L	3.0	2.0	6.0 L	4.0 L	3.0 L
3.5 L	3.5	3.0 R	4.5 L	4.0 L	3.5 R
1.0 R	2.5 L	3.0 L	5.5 L	5.0 R	3.0 L
3.0 L	3.0	4.0 L	5.0 L	4.0 R	4.0 R
2.5	4.0 L	4.0 L	4.0 L	3.5 R	4.0 L
4.0	4.5 L	4.0 L	3.0	3.0 R	4.5 L

Concrete Thickness Spot Check — Witness: J. Irwin

EW Unit 3 Girder D-9 — 9-13-71

Bay 4					
10" From Top F	Lt	10" From Bot F	10" From Top F	Rt	10" From Bot F
2.5	4.5 R	4.0 R	1.5	4.0	4.0 R
3.0	4.0 R	3.0 R	3.0R	2.5	3.5 R
2.0	4.0 R	2.5 R	2.5	2.5	3.5
2.0	2.0	2.5	3.0	3.0	3.5
3.5R	2.0	2.0	4.0R	2.98?	3.0
3.5 R	3.0	2.5	4.0R	3.0	3.0
3.5 R	2.0R	2.5	3.5R	4.0	4.0
3.0R	4.0	4.0	3.0	3.0R	3.0
4.0 R	4.5	4.0	2.5	3.0	3.0 *
3.5 R	3.0	4.5	3.0	2.0	4.5
3.0	2.5	3.0	3.5R	4.5 *	3.0
4.0 R	4.5 R	3.0	4.0R	3.5 *	3.5
5.0 R	5.0 R	4.0 R	4.5R	5.0	5.0 *

4 of 8

Witness: J. Irwin

EW Unit 2 Girder D-9

Bay 3					
10" From Top F	Lt	10" From Bot F	10" From Top F	Rt	10" From Bot F
2.0	1.5	3.0	1.5	3.0	3.0
2.0	3.0	2.0	2.5	3.0	2.5
2.0	2.5	2.0	2.5	3.0	2.0
2.0	2.0	2.0	4.0	4.0	3.0
3.0 R	2.0	2.0	3.0	3.0	2.5
3.0 R	2.5	2.5	3.0	2.0	2.5
2.0 R	3.0 E	3.0	3.0	2.5	2.0
2.0 E *	3.0	2.0	3.0	4.5	2.5
3.0	3.0	2.0	4.0	2.0	3.0
3.0	3.0	2.0	4.0	2.0	3.5
3.0	2.0 E	2.0	3.5	5.5 E	3.0
3.0	3.0 E	2.0 E	4.5 E	5.0 E	4.5 E
	2.0	3.0 E	5.5 E		

3 of 8

Eastern Tuberculosis Sanitarium
EW Unit 3 Girls D-9
9-13-71

W. McCormick
J. Irwin

Bay 5

Lt 10" From Top Ft	Lt L	10" From Bot Ft	10" From Top Ft	Rt L	Rt 10" From Bot Ft
1.0	3.5	3.0	2.0	3.0	5.0
2.0	3.0	3.0	4.0	3.5	4.5
2.0	2.5	3.0	3.0	3.5	3.5
2.0	3.0*	3.0	3.0	3.5	3.0
2.5	2.0	4.0*	2.5	5.0	3.0
2.0	3.5	3.5	4.0	4.0	3.5
1.5 R	3.0	2.5	5.5R	3.0	3.5
3.5L	2.5	2.5	4.0	2.5	5.0 R
4.0	2.5	3.0	3.5	3.5	3.5
3.5	3.5	4.0*	2.0	5.0	4.0
3.0	2.5	4.5R	3.5	5.5	3.5
4.0	3.0*	4.5R	3.5	2.0	4.0
4.5	5.0 R	4.0 R	4.0	3.5	4.0
			1.0	4.5	

5 of 8

Eastern Tuberculosis Sanitarium
EW Unit 3 Girls D-9
9-13-71

W. McCormick
J. Irwin

Bay 6

Lt 10" From Top Ft	Lt L	10" From Bot Ft	10" From Top Ft	Rt L	Rt 10" From Bot Ft
2.5 R	4.0	3.0	3.0 L	5.0	3.0
2.5 R	3.5	3.5	2.5	4.0	4.0
4.0 R	7.0	3.0	2.5	6.0	4.0
3.5 R	5.0	2.5*	2.0	4.0 L	3.5
2.0	4.0	3.0	2.0	4.0 L	3.0
2.5	5.0 R	3.0	2.5 *	4.5	5.0
5.5 R	4.0 R	2.5 L	3.0	4.0 L	4.0 L
2.5 R	3.0 R	2.5 R	4.0 R	4.0	5.0 L
3.5 R	3.5	2.5 R	4.5 R	3.0	5.0
3.5 R.	3.5	2.5 R.	4.0 R	3.5	4.0 L
5.5 R	4.5	3.5 R	3.0 L	4.5	5.0
4.25 R	5.0	3.0	2.0 R	3.0 L	3.0
3.0 R	8.0 R	4.0 R	2.0 L	2.5 L	3.0 *
		4.5 R			

6 of 8

Kaiser Ingot Thickness Spot Graphic
EW Unit 3 Girder D-9
9-13-71

Bay 7

10" From Top Flg	Ctr Web	10" From Bot Flg	Ctr Web	10" From Bot Flg
4.5 R	4.5 L	3.0	4.0 R	2.5
2.5 R	4.0	3.5	3.0 R	2.0 *
5.0 R	5.0	3.0	4.0 R	3.0
4.0 R	4.5	4.5	4.0	2.0
5.5 R	4.5 E	5.0 E	3.5	3.5 E
4.0	3.0	5.0 R	3.0	3.0
3.0 E	3.0	3.5	3.0	3.0
3.0 E	3.0	3.5	3.0	3.0
3.0 E	2.0	2.0	4.5 R	3.5
3.0 E	3.0 E	3.0	5.0 R	4.0
3.0	2.0 *	2.5	3.5 R	3.0
3.0 E	4.0 E	2.0	3.0 R	3.5
3.0 E	5.5 E	6.0 E	3.5 R	5.0 E

W. McConnel
J. Irwin

8308

Kaiser Ingot Thickness Spot Graphic
EW Unit 3 Girder D-7
9-13-71

Bay 8

10" From Top Flg	Ctr Web	10" From Bot Flg	Ctr Web	10" From Bot Flg
3.0	3.0	4.0 E	2.0 E	1.5
2.5	2.0	3.0 E	4.0	3.0
4.0	4.5 L	4.0 E	3.0	3.0
4.5	4.5 E	3.0	5.0 R	3.0 R
3.0	3.0	3.0	3.0	5.0
	3.0 E	2.0	3.0	4.0

Wm. J. Irwin
9-13-71

8308

Recap

E/W UNIT 3 GIRDER D-9

ZINC REPAIRED

MILS	X	NO. OF READINGS	=	
1.5		1		1.5
2.0		9		18.0
2.5		12		30.0
3.0		48		144.0
3.5		21		73.5
4.0		43		172.0
4.5		23		103.5
5.0		22		110.0
5.5		7		38.5
6.0		3		18.0
6.5		1		6.5
8.0		1		8.0
		191		723.5/191 =

3.79 MIL. AVG.

E/W UNIT 3 GIRDER D-5

ZINC NOT REPAIRED

MILS	X	NO. OF READINGS	=	
1.0		1		1.0
1.5		6		9.0
2.0		67		134.0
2.5		52		130.0
3.0		111		333.0
3.5		46		161.0
4.0		37		148.0
4.5		13		58.5
5.0		11		55.0
5.5		1		5.5
6.0		1		6.0
7.0		1		7.0
		347		1,048.0/347

3.02 MIL AVG.

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I-405-8(62)304
7310

CALIFORNIA STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

SUBJECT:

To: File

RECEIVED
JUL 14 1971
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

showed an acceptable surface. Under these circumstances there was no justification to go to a two-coat system and so our present plan is to proceed with Dujay's standard vinyl using the Toluolene-based thinner.

With regard to thinning this paint, even though the job specifications state that it shall be delivered ready for use without thinning, the State will allow the Contractors to add a "normal" amount of thinner. He cautioned the Contractors to avoid the use of straight MEK thinner as this appears to aggravate the bubbling condition.

Mr. Johnson also told those present that the color of the finish coat for the bridge and its approaches should be changed to Celadon Green and that letters were being sent to confirm this.

A considerable discussion regarding the bubbling of vinyls ensued and it was the opinion of the Contractors present that nothing new had evolved from the State's test program for vinyl and that we were right back from where we started from last fall. They asked what we would do when the vinyl started bubbling again and requested some sort of backup alternate to be used in order to keep the painting work going and when the bubbling starts.

The question of switching paint furnishers from Dujay to Carboline was also discussed. Mr. Johnson said that the State did not object to changing paint suppliers if requested by the Contractor if some other kind of paint could do a better job. Bob Everett proposed that the State reject the Dujay vinyl based on the fact that its viscosity is such that the thinning necessary for proper application takes it out of our specification for solids contained and weight per gallon and then to pay Anderson-Nelson $7,000 as the extra cost of the Carboline paint. No definite conclusions were reached regarding such a change.

Mr. Johnson mentioned a problem which we have just discovered on the Lake Freeway project. It seems that a number of girders which had previously had their rust spot repaired where rust was showing are now showing new areas of rust in previously unrepaired areas. The assumption is that the painting of the girders is progressive and the new rust has become visible to the eye subsequent to the first repairs. The State's position is that these newly found areas must be repaired in a similar fashion to that already done prior to the application of the vinyl top-coat.

R. L. Schroeder
Metropolitan Engineer

By.
ORIGINAL SIGNED BY EDWARD L. HARDT
Edward L. Hardt
Assistant Metropolitan Engineer

cc: [illegible] w/attach.
[illegible] Bros. "
[illegible] "
Robert Cunningham "

OREGON STATE HIGHWAY DEPARTMENT

TABULATION SHEET

SHEET ..... OF ..... SHEETS

VINYL PAINT EXPERIMENTS — WEST FREMONT CO. I-205

WEST Time = 7/1/71

CARBOLINE MAT'L

BAY No.	Inorg.	TIE COAT VINYL	2nd Coat VINYL	Dry Film Thickness of Vinyl	Surface Acceptable	REMARKS
9, 10 & 12	Inorg. Zinc	—	936-1	—	3 to 11 mil	Yes	Occasional Fine Pinholing near Horiz stiff. on web
9	Inorg. Zinc	—	936-1	936-1 5 min water	1 to 5 mil	Yes	Same as above
3 Rt. Girder	Inorg. Zinc	—	936-1*	—	7 mil	Yes	Same as above
4 Rt. Girder	Inorg. Zinc	—	936-1**	—	7 mil	Yes	Same as above — Less pinholing.

PAINT — Inorg. Zinc applied by Carboline

936-1 - Carboline Vinyl, w/ thinner

936-1 - 5% #25 thinner added

936-1** - 10% ✓ ✓ ✓

EQUIP — 30:1 Graco airless with 30# fluid pressure

Vinyl applies easily in or without thinner. High solids content caused some problem in maintaining desired 5 mil thickness

OREGON STATE HIGHWAY DEPARTMENT

TABULATION SHEET

SHEET ..... OF ..... SHEETS

VINYL PAINT EXPERIMENTS — WEST FREMONT Cont. 72 Ft.

Start Date 6/29/71 End 8/17

ENLAY N. T'L

BAY No.	Zinc	Tie Coat	VINYL	2nd Coat VINYL	3rd Coat Thick VINYL	Surface Green	REMARKS
1	9:00 a	6575	4518	—	4 mil.	No	Extensive Scaling
2	9:01	6520	4519	—	5½ mil	No	Large Pinholes at top of web
3	9:03 a	5520	4515	—	7 mil	Yes	Limited Bubbling on stiffeners.
4	9:04 a	—	4513	4518 Applied 1 hr after 1st C.	7 mil	Yes	Same as (3) 1st C. Extensive pinholing on 2nd coat.
5	9:06 a	—	4518	4518 2 minutes later	7 mil	Yes	Same as (3)
5	9:14	—	4511	—	5 mil	Yes	Same as (3)
6	9:16	—	5537	5537 Applied 1 hr after 1st C.	7 mil	Yes	Same as (3)
6	9:18	—	5537	—	7 mil	Yes	Same as (3)

Primers: Zinc = Zinc applied by Carboline plant. No areas repaired.

75 = Chlorinated rubber-zinc primer

72c = Red Color vinyl primer

72c = Blue tie coat

Vinyl = Slower drying vinyl thinned with 1 gal Toluene/Xylene

Vinyl = Regular vinyl thinned with 1 gt/5 gal Xylene-Toluene

Equipment: Tank 4 is equipped with 1000 psi airless equipment capacity of both 5537 and 5518 is adequate for spray property. Additional thinning of 5537 will lower wt/gal and Total solids below minimum specified.

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JUL 13 1971
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I-405-8(22)Sr 4
7310

July 12, 1971

Harlan Associates, Inc.
11 Duboce Avenue
San Francisco, CA 94103

Attention: Mr. Harold Harlan, Jr.
Technical Director

Gentlemen:

This will acknowledge receipt of your report dated 30 June, 1971, concerning variations of film thicknesses of inorganic zinc coatings applied to portions of the East and West Fremont Interchange Sections of the Fremont Bridge in Portland.

I am returning herewith your report dated 25 June, 1971, which was revised by the above-mentioned report.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms
att.
cc R. L. Porter
Tom Edwards
I. D. Merchant
Ed Hardt

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JUL 1 2 1971
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I-405 8(22) 3C-1
7310

July 12, 1971

Andersen-Hannan
Post Office Box 13367
Portland, OR 97213

Drake-Willamette
1201 N. Loring
Portland, OR 97227

Gentlemen:

Enclosed is a copy of a report by Harlan Associates, Inc. concerning variations in film thicknesses of inorganic zinc coatings applied to portions of the East and West Fremont Interchange Sections of the Fremont Bridge in Portland. These copies are being furnished to you at the request of Mr. Franklin Drake in order that you may have an opportunity to go over them prior to our scheduled meeting on July 21.

As a matter of fair play, it is requested that you furnish us with a copy of Can Test's report concerning the same subject prior to our meeting.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms
Att.
cc R. L. Porter
Tom Edwards
I. D. Merchant
Ed Hardt/att

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

30 June 1971

Our File: P-5711

AIRMAIL

This report is presented as the confidential property of our client. For our mutual protection, authorization for publication in any manner is reserved pending our written consent.

Department of Transportation
Highway Division
138 State Highway Building
Salem, Oregon 97310

Attention: Mr. A. E. Johnson, Assistant Highway Engineer

Gentlemen:

1. This report covers observations, examinations and tests completed to date with regard to variation in film thicknesses of inorganic zinc coatings applied to portions of the East and West Fremont Interchange Sections of the Fremont Bridge, Portland, Oregon.

2. The writer observed the metal preparation and painting procedures in operation 6 April 1971 at Canron Plant II in Vancouver, B.C.

2.1 Blast removal of rust, mill scale and debris from the surface of the girder appeared satisfactory.

2.2 The paint was spray applied. During our observation, a coat of Rust-Ban 193 was applied, the film thickness checked by a wet gage, and an additional coat of Rust-Ban 193 immediately applied while the first coat was still wet. No sagging or running of the coating was noted.

2.3 Inspection of application of the 6851 curing accelerator was difficult because of the saturation of the air with acid spray: however, observation of a portion of a curing agent treated girder during a "Coffee Break" period, indicated the 6851 was being applied to achieve a full wet coat. The full wet coat application of 6851 curing accelerator was later confirmed verbally by Mr. John Wulf of Corrosion Coatings Ltd.

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
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138 State Highway Building
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AFFILIATIONS: National Paint, Varnish and Lacquer Association . . . Federation of Societies for Paint Technology . . . American Chemical Society . . . American Society for Testing and Materials . . . American Institute of Chemists . . . Air Pollution Control Association . . . American Oil Chemist's Society . . . Society of Plastics Engineers . . . Research Society . . . International Technical Association . . . Technical Association of the Pulp and Paper Ind

This report is prepared as the sole and exclusive property of our clients. For our mutual protection, publication for publication or in any manner is reserved pending our written consent.

2.4 Film thicknesses were measured on a Rust-Ban primed and 6351 post cured treated girder marked D9T, while the girder was still under cover in the blasting and coating shed. Film thicknesses ranged from 3.0 to 3.5 mils when examined by a Tooke gage.

2.4.1 Girder D9T was then moved out of the shed into a moderately heavy rain. Bubbling of the surface was observed where wetted by the rain: however, laboratory tests indicate a bubbling action of water wetted Rust-Ban 193 occurs whether the Rust-Ban 193 has been post cured or not and is, in our opinion, a result of displacement of the air trapped within the pores of the highly porous Rust-Ban 193 coating.

2.5 Girder A3L, mounted on a barge in Vancouver was examined for film thickness using a Tooke gage. A film thickness of 4.5 mils was observed in Vancouver on 6 April 1971. The same Girder was examined in Portland (still barge mounted) on 15 April 1971 and no film thickness change was noted. The time differential, in our opinion, was too short to allow any meaningful conclusions to be made with regard to loss of zinc.

2.5.1 The coating on a section of barge mounted Girder A2L wetted by rain was found to be soft and easily removed by scraping in comparison with other girder coated areas also wetted with rain. The same area was checked again in Portland and found to be hard and adherent (coating dry at time of 15 April 1971 Portland examination). Duplication of a similar condition has not been possible in this laboratory to date.

2.6 Mr. Dale Davies of Canron and the writer examined panels prepared by Can Test Ltd. in conjunction with Canron and exposed to the elements near the beach in Vancouver. Mr. Davies stated that no loss of film thickness had been observed in the 14 to 21 day period the panels had been exposed. The coating on the panels was hard and adherent.

3. The writer's observations at Canron Plant II made in Vancouver 6 April 1971, discussions with Mr. John J. Wulf of Corrosion Coatings, Ltd., sandblasting and paint contractor on job at Canron and Pittsburgh Testing laboratory Report dated 26 March 1971 resulted in our laboratory's adoption of the following laboratory test panel preparation procedure.

3.1 Steel panels were sandblasted to a blast pattern of approximately 0.5 mil and coated with Rust-Ban 193 applied by spray to achieve a dry film thickness of 3 mils minimum. Panels were allowed to dry for 4 hours at 70° F. and 50-60% relative humidity.

This report is prepared as the confidential property of our client, for our mutual protection, authorization for publication in any manner is reserved pending our written consent.

3.1.1 Film thicknesses of the coated panels were measured and a series of panels treated with Enjay 6851 Curing Accelerator. The accelerator was applied at 400 square feet per gallon (the application rate indicated by Mr. Lawry as used at Canron) and 260 square feet per gallon (the value determined in this laboratory as required to achieve a full wet coat application of Curing Accelerator when applied to Rust-Ban 193, 3 mils minimum dry film thickness). The Curing Accelerator treated panels were allowed to dry one hour, film thicknesses again measured and a series of panels consisting of one panel without Curing Accelerator, one panel with Curing Accelerator applied at 400 square feet per gallon and one panel with Curing Accelerator applied at 260 square feet per gallon were subjected to the following tests.

3.1.1.1 Weathering by acceleration, Federal Test Method 141a, Method 6151.

3.1.1.2 Continuous water spray, ambient temperatures.

3.1.1.3 Alternate cycles of water spray (8 hours at 40° F.) and storage at 16 hours dry storage at 40° F. During weekend periods, the panels were continously stored at 40° F.

3.1.1.4 Salt Fog, ASTM B-117.

3.1.1.5 One series of panels was stored at ambient temperature and humidity as controls.

3.2 At the conclusion of the test period, the panels were allowed to recover for a period of four hours at 70° F. and 50-60% relative humidity prior to measuring of film thicknesses.

3.3 Results to date indicate the following:

3.3.1 With regard to the control panels application of the Curing Accelerator increases the apparent film thickness of the coating by +0.1 to +0.5 mil dependent upon the amount of Curing Accelerator applied. Eighteen hours after application and four weeks after application the apparent film thickness change determined for control panels is ± 0.1 mil.

3.3.2 After 400 hours of weathering by acceleration, in our opinion equivalent to one year exterior exposure, apparent film thickness variations are: no Curing Accelerator, -0.2 mils; 400 square feet per gallon Curing Accelerator, -0.2 mils; 260 square feet per gallon Curing Accelerator, -0.3 mils.

3.3.3 Continuous water spray, ambient temperature, three weeks exposure: no Curing Accelerator, -0.4 mil; 400 square feet per gallon Curing Accelerator,-0.2 mil; 260 square feet per gallon Curing Accelerator, -0.5 mil.

HARLAN Associates, Inc.
PAINT RESEARCH LABORATORY
[illegible] DODGE AVENUE • SAN FRANCISCO
CALIFORNIA 94103

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3.3.4 Cold water spray and storage cycling, three week exposure: no Curing Accelerator, -0.3 mil; 400 square feet per gallon, -0.3 mil; 260 square feet per gallon, -0.5 mil.

3.3.5 Salt Fog exposure, 250 hours: no Curing Accelerator, -0.4 mil: 400 square feet per gallon Curing Accelerator, -0.4: 260 square feet per gallon Curing Accelerator, -0.3 mil.

3.4 Measurements were made by micrometer, loose zinc corrosion products removed prior to measuring.

4. In our opinion, application of Enjay Rust-Ban 193 in a continuous film at a dry film thickness of 3 mils minimum and post cured with Enjay Curing Accelerator 6851 as per paragraph 3.1 above, will yield a rust inhibitive coating resistant to adverse weather conditions. A maximum change in film thickness of -0.5 mil has occurred for panels subjected to accelerated aging tests and, in our opinion, represents the maximum average change in film thickness that may occur between new and aged, properly applied and post cured, Rust-Ban 193 when exposed to the elements for a period of six to twelve months.

Respectfully submitted,

H. R. Harlan Jr.

Harold R. Harlan Jr., Technical Director

HARLAN ASSOCIATES, INC.

HRHJr:mp
Orig. & 2cc

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JUL 7 1971
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HARLAN Associates, Inc.
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JUL 19 1971
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OREGON STATE
HIGHWAY DIVISION
METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971.

I 405-8(22)350
7310

July 12, 1971

Drake-Willamette
1201 North Loring Street
Portland, Oregon 97227

NOTED
A. E. JOHNSON

Re: Fremont Bridge

Gentlemen:

It has been decided to change the color of the steelwork of the Fremont Bridge and its approaches to Celadon Green as portrayed by Glidden's color chip G-125. Please take the necessary steps to change the vinyl finish coat to this color and advise if there will be any extra costs generated by this change.

You have previously been advised that we have recently noticed discoloration of vinyl paint applied on your project which has had a southern exposure. This condition will not be tolerated and you are hereby cautioned to do whatever is necessary to insure that the finish coat as described above will be color-fast.

Very truly yours,

R. L. Schroeder
Metropolitan Engineer

By:

ORIGINAL SIGNED BY EDWARD L. HARDT

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
Ivan Merchant
John Jenkins
Robert Shotwell

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JUL 13 1971
OFFICE OF
STATE HIGHWAY ENGINEER

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CORROSION RESISTANT COATINGS
FOR MAINTENANCE • EQUIPMENT • TANK LININGS • FLOORS

328 HANLEY INDUSTRIAL COURT
ST. LOUIS, MO. 63144

REPLY TO:
DAVID L. MUTH
P. O. BOX 116
MERCER ISLAND, WASH. 98040
PHONE: (206) 232-8545

I-405-8(22)380
7-12

July 6, 1971

Mr. A. E. Johnson
Assistant State Highway Engineer
Highway Division
Department of Transportation
138 State Highway Division
Salem, Oregon 97310

Dear Mr. Johnson: Subject: Freemont Bridge Painting

Thank you for taking the time to examine test applications of Polyclad 936-1, our high build vinyl, on West Freemont, on July 2.

Inorganic zinc coatings are an answer to a corrosion engineer's prayer, and I am sincerely sorry that your first attempt at utilizing them on a bridge have presented new problems. This can only hurt our industry as well as yours. We worked hard to sell our system, which we thought was better, but were outsold by the competition. Such is life.

In any event, the products that we are commending to you as a solution to the application problems being encountered, are the same ones that we presented when the job was being bid. Carbo Zinc 11, our patented ethyl silicate inorganic zinc is the primer and 936-1 is the finish. Carbo Zinc 11 is listed on both Navy specifications, as required by the original Freemont Specifications, and, it meets the new revised specifications used by the States of Washington and Oregon, which rule out water borne inorganic zinc coatings.

936-1 is the result of years of evolution, and was formulated specifically for topcoating inorganic zinc coatings. I am amazed and proud that 936-1 can go over inorganic zinc without bubbling or pinholing considering that it has 20% more solids than most high build vinyls I know of.

TEST RESULTS

Polyclad 936-1 can be successfully applied over clean and dry Rust Ban 191 or 193 that is new or old, warm or cold, at package consistency with no thinning, in excess of 5 mils in one coat, with less pump pressure and with greater ease, faster production, with only minor dimpling, cratering, and virtually no bubbles or pinholes.

By applying the unthinned material in two pass, or in one pass with 5-10% thinner added, a blemish-free surface is obtained. Even with thinning, our solids content is above the minimum allowed in the specifications. If you can buy a few non-pinholing craters and dimples per 100 ft.^{2}, the one coat

application straight from the bucket would be the most economical. However, to sell the change to the Federal Highway people, perhaps the thinned coat is the best.

As I see it, to continue to use the present system will violate the specifications, no matter how the contractor proceeds. This violation does not necessarily improve the job, but can cause further problems and uncertainties.

Switching to Carboline vinyl will also violate the specifications*, but in a way that will improve the job obtained, and with greater ease and less interruptions. I am sure that the taxpayers would rather have the specifications violated and get an excellent job than to violate them and get a poor or questionable job.

However, if the inorganic zinc primer refurbishing is done with Carbo Zinc 11, it could be argued that the finish coat will then be made by the supplier of the inorganic zinc primer.

PRECEDENTS FOR CHANGE

There are many precedents to back you up in changing to Carboline:

1. Numerous bridges around the country have been coated with our Carbo Zinc 11 primed systems as far back as 1962. (See attached list)

2. Numerous Pacific Northwest bridges have been primed with Carbo Zinc 11, and have met the Northwest conditions both in the shop and in the field with no concern for special treatment or for weather conditions. The Yaquina Bay Bridge underdeck was coated with the same system as I am suggesting here, last fall, and is considered to be successful after less than a year, because other coatings would have shown evidence of breakdown by now.

3. The Snohomish Bridge in Everett, Wash. was primed with the same formula as the Freemont interchanges. After the fabricator had exhausted all methods suggested, Carbo Zinc 11 was introduced to the job, and turned a possible fiasco into a successful job. Carbo Zinc was applied over the same primer as you have on West Freemont, and the coatings look excellent after nearly 4 years in a strong pulp mill atmosphere. Formulation vinyls were used as finish coats.

4. Oregon Bridge and Highway Maintenance Divisions have been using Carbo Zinc 11 and 936-1 for repair work. In May, I received an order from Astoria to repaint some small portions. Interestingly, they did not order the product used there on last year's maintenance contract.

5. The Federal Highway Administration has the Horsetail Falls Bridge in the North Cascades that was coated with 2 coats of Carbo Zinc 11. This fact can't hurt us in trying to make a change on Freemont.

* Page 59 para (a)

CONCLUSION

The application difficulties with the present system could result in increased costs, more hassles, with a chance of a future problem with discoloration. The latter is hearsay only.

To switch to Carboline will result in a slight increase in cost, depending on which route you take, but the increase in cost will buy added value for the taxpayers. The contractors will have an easier material to work with that should increase production rates and meet your schedules easier. You will have fewer rejections to contend with and the morale of all concerned is bound to improve.

Carbo Zinc 11 and Polyclad 936-1 are compatible with clean and dry Rust Ban 191, Rust Ban 193 and Mobil Zinc 1.

We will provide, at our expense, enough field service to adequately train field applicators and inspection personnel in proper application proceedures for the above products. In addition, I will be available on a periodic basis to consult and advise on the job for the duration of work. I will also be interested to follow and document performance as years go on.

Carboline is one of the top, if not THE TOP, supplier of corrosion resistant coating systems, as a result of 25 years of specialization. We are in no other business. Our technical research department is second to none in the industry, and our long list of innovations and field successes attest to it.

Considering all the above, I believe that Oregon Highway Division is fully justified in changing to Carboline products for the remainder of the Freemont Bridge Project. I will look forward to seeing successful completion of the job.

Very truly yours,

David L. Muth

CARBOLINE COMPANY

Attachments
cc: Ivan Merchant
Edward Hardt
John Howard
St. Louis-SLS, JDB

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JUL 3 1971
OFFICE OF
STATE HIGHWAY ENGINEER

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CASE HISTORIES OF BRIDGE JOBS

1.	Louisiana State Highway Department Houma, Louisiana	Floating Bridge - 1962 Carbo Zinc 11 + Carboline 190HB
2.	U. S. Marine Corps Reservation Camp Lejeune, North Carolina	Onslow Beach Bridge Carbo Zinc 11 - 1964
3.	Illinois State Highway Department	Poplar Street Bridge, St. Louis, Mo. Carbo Zinc 11 + Carbomastic 14 - 1967
4.	Texas State Highway Department	Lake Travis Bridge, Austin, Texas Carbo Zinc 11, 190HB - 1967
5.	New Hampshire State Highway Department	Merrimack River Bridge Carbo Zinc 11 + 1294 - 1968
6.	City of Toledo, Ohio	Various Bridges Carbo Zinc 11 + 1294 - 1968
7.	North Carolina State Highway Department	Oregon Inlet Bridge Carbo Zinc 11 + Carbomastic 14 - 1968
8.	North Carolina State Highway Department	Carolina Beach Bridge Carbo Zinc 11 + Carbomastic 14 - 1968
9.	Bureau of Public Roads	Upper Skagit River, Horse Tail Falls Bridge, Washington Carbo Zinc 11, 2 coats - 6 mils - 1967
10.	Washington State Highway Department	Northern Cross Bridge Carbo Zinc 11 - formulation vinyls - 196
11.	Washington State Highway Department	Snohomish Bridge Carbo Zinc 11- formulation vinyls-1968/9
12.	Washington State Highway Department	Central Ferry Bridge Carbo Zinc 11 - formulation vinyls - 196
13.	City of Toronto, Ontario	Don Pedro Expressway Bridge Carbo Zinc 11 + Polyclad 936-1 - 1969
14.	Corps of Engineers Cape Kennedy Space Center (NASA)	Haulover Canal Bridge, Merritt Isle, Fla Carbo Zinc 11 - 4 to 6 mils - 1969
15.	State of Florida Department of Transportation	Fuller Warren Bridge Carboline 676 - 4 to 6 mils, Admiral HA 500 Aluminum - 1½ mils, 1969-1970
16.	County Engineer Volusia County, Florida	Seabreeze Bridge Carboline 676 + 1294 - 1969
17.	State of Florida Department of Transportation	St. Augustine Bridge Carboline 676 - 4 to 6 mils, 1294 - 2 to 3 mils - 1968
18.	County Engineer Volusia County, Florida	High Bridge Intercoastal Waterway Carbo Zinc 11 - 4 to 6 mils

19.	Washington State Highway Department	154th Street Bridge Riverton, Seattle, Washington Carbo Zinc 11 - 1970
20.	Washington State Highway Department	Kalama Interchange Carbo Zinc 11 + formulation vinyl - 1970
21.	Washington State Highway Department	Stillaguomish, Marysville, Wash. Carbo Zinc 11 - 1970
22.	Oregon State Highway Department	Yaquina River Bridge, Newport, Oregon Carbo Zinc 11 + 936-1
23.	Missouri State Highway Department	Hurricane Deck Bridge, Lake of Ozarks Camdenton, Missouri Carbo Zinc 11 + 936-1
24.	Newport River Bridge Morehead, North Carolina	1 coat Carbo Zinc 11 - 3 mils - 1970 1 coat Carbomastic 5-140 - 5 mils
25.	Missouri State Highway Department	Route V Bridge, New Haven, Missouri Carbo Zinc 11 - 1970
26.	Missouri State Highway Department	Highway 19 Bridge, Hermann, Missouri Carbo Zinc 11 + 936-1 - 1970
27.	Missouri State Highway Department	Route S Bridge, Howard County, Mo. Carbo Zinc 11 - 1970
28.	Missouri State Highway Department	Route 40 TR Bridge, St. Louis County, Mo Carbo Zinc 11 - 1970

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POINTS FAVORING CARBO ZINC 11 FOR STRUCTURAL STEEL

Carbo Zinc 11 is a near ideal primer and single coat for blasted steel on both shop and field applications. It is most important in our coating systems and merits special consideration as follows:

Type of Product:	Inorganic zinc primer
Type of Binder:	Self-curing, solvent-base, partially hydrolyzed ethyl silicate
Surface Preparation:	Blast to commercial grade, SSPC SP6-63, for non-immersion service

List of Points Favoring Carbo Zinc 11 Primer:

1. Gives maximum protection against corrosion at minimum cost to the Highway Department in cents/square foot/year and to the steel fabricator in ease of application and in reduced field touchup required.

2. Protects by galvanic action like galvanizing. There is no organic material in Carbo Zinc 11 to encapsulate zinc powder, thus zinc is in contact with steel for maximum efficiency.

3. Based on Points 1 and 2, there is no corrosion undercutting at points of damage and no sub-film corrosion and blistering of Carbo Zinc 11 films.

4. Has outstanding adhesion to steel as a result of binder type, good wetting of steel by the solvent base, and other factors of the formulation.

5. Based on these factors and confirmed over a period of thirteen years, Carbo Zinc 11 performs well over steel blasted to Commercial Grade (SSPC SP6-63) as specified in Carboline Application Instructions. Neither near-white nor white metal blast is required for non-immersion service.

6. Cures rapidly - as a rough average, steel can be turned with clamps in 30 minutes after coating. Shipyards turn steel almost immediately (5 or 6 minutes) and touch up the points of contact if required. Steel can usually be shipped within 3 hours after coating.

7. Carbo Zinc 11 does not skin from the steel like organic zinc and other organic primers. It is damaged only at the point of contact and usually not through to the steel.

8. Shop primed steel holds up well during shipment. There is minimal damage, usually less than 1%, which is easy to touch up.

9. Carbo Zinc 11 may be applied under a wide range of temperatures from 0°F to 200°F.

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POINTS FAVORING CARBO ZINC 11 FOR STRUCTURAL STEEL (2)

10. Twenty minutes after application Carbo Zinc 11 can be sprayed with water or subjected to rain or dew with no damage to the film. This is important for outdoor application, both in winter and summer.

11. Carbo Zinc 11 adhesion is not sensitive to depth of blast profile. To emphasize the point, bolts can be solvent cleaned and dipped in Carbo Zinc 11 for added protection. Adhesion is good.

12. Carbo Zinc 11 is easy to apply at uniform thickness and thickness is not critical. Up to 6 mils or even more may be applied without mud cracking or adhesion loss.

13. Carbo Zinc 11 can be top coated at any time, even after years of exposure. It is only necessary to remove dust, dirt, etc. by brushing.

14. Friction-grip faying surfaces of steel beams hold better when coated with Carbo Zinc 11 than when uncoated. This eliminates blocking of ends of certain beams and reduces application time and cost. Also improves protection.

    This is documented by reports from Lehigh University and The Steel Company of Canada, Ltd. Also we have large projects coated in this manner.

15. Steel primed with Carbo Zinc 11 may be welded in the same manner as hot dip galvanized steel.

16. Service is a strong part of Carboline's policy. We have qualified men throughout the United States and a number of Field Service Engineers in St. Louis from whom to draw in servicing you.

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CARBO ZINC 11 -- MATERIAL SPECIFICATION

COATING REQUIREMENTS-CS-CZ-1

1.1 Carbo Zinc 11, a self curing inorganic coating formulated with powdered zinc filler to prevent undercutting corrosion and to provide galvanic protection to steel, shall meet the following quantitative requirements:

Non-volatile content of resin-filler combination - 80% ± 2% by weight

Non-volatile yield per gallon kit* of material - 1000 mil ft. based on volume of dry film.
Theoretical coverage per gallon kit* @ 3 mils dry film thickness on flat, smooth surfaces - 333 sq. ft.

Working time (pot life) @ 75° F. - 12 hours. (5 gallon kit or less mix)

* 1 gallon kit consists of the proper amounts of resin and zinc filler which, when mixed, result in a full gallon.

CHEMICAL RESISTANCE CS-CZ-2

2.1 One coat, 2½-3 mils thick, shall be applied in accordance with Carboline's current instructions on all surfaces of 2" x 5" x 1/8" steel panels. The panels shall be of cold rolled steel, dust free, degreased properly with an aromatic solvent like xylol. No blasting or etching of the steel panels is allowed.

2.1.1 Fresh Water Resistance
After drying two (2) hours @ 75° ± 5° F and 75-85% relative humidity, panels shall be scribed with an X of at least 2 inch legs down to the base metal and immersed in fresh tap water at 75°F ± 5°F. The panels shall be examined after 7, 14 and 30 days and shall show no rusting, blistering or softening.

2.1.2 Salt Water Resistance
After drying two (2) hours @ 75° ± 5°F and 75-85% relative humidity, panels shall be scribed with an X of at least 2 inch legs down to the base metal and immersed in 5% sodium chloride at 75° F ± 5°F. The panels shall be examined after 7, 14 and 30 days and shall show no rusting, blistering or softening. Solution shall be changed after each grading period.

2.1.3 Weathering Resistance
A panel prepared as stated under 2.1 shall be allowed to dry only 20 minutes minimum, 30 minutes maximum, at 75° F ± 5° F and 75-85% relative humidity and placed in a weatherometer operating on a 17-3 cycle, 165° F black surface temperature, in accordance with ASTM method E-4257 Type D. Place the panel on test at the beginning of the wet cycle. After 500 hours and 1000 hours continuous exposure, the coating shall be examined and show no rusting, loss of adhesion to steel or blistering.

2.1.4 Weathering and Salt Fog Resistance
A panel shall be placed in the weatherometer as in 2.1.3 for 300 hours. After this, remove and scribe the coating with an X of at least 2 inch legs down to the base metal. Expose the panel in a salt fog cabinet, 10% by weight sodium chloride in the fog, operating in accordance with ASTM B-117-57T. After 400 hours continuous exposure, the coating shall show neither loss of bond, nor rusting or blistering beyond 1/16" from the center of the scratch.

2.1.5 Resistance to Flowing Cold Water 20 Minutes After Application
A panel shall be placed 6" - 8" under a ½" diameter water tap delivering 5 gallons per minute fresh water at 65° F ± 10° F. The panel shall remain under this direct water flow for 30 minutes and at the end of this period, the coating shall be unaffected. The panel shall show no rusting, after 24 hours in air following the water test.

2.1.6 Resistance to Flowing Hot Water 20 Minutes After Application
A panel shall be placed 6" - 8" under a ½" diameter water tap delivering 5 gallons per minute fresh water at 140° F ± 10° F. The panel shall remain under this direct water flow for 30 minutes and at the end of this period, the coating shall be unaffected. The panel shall show no rusting, after 24 hours in air following the water test.

2.1.7 Resistance to Elevated Temperatures & Thermal Shock
After 20 minutes dry time, a panel shall be exposed to 800° F for 1 hour, then quenched immediately in 65° F ± 5° F water. At the end of the test, the panel shall show no blistering or flaking of the coating.

2.1.8 Solvent Resistance
After drying 48 hours at room temperature 75° F ± 5° F and 75-85% relative humidity, panels shall be immersed in each of the following solvents at room temperature:

(a) Methylethyl ketone
(b) Toluol
(c) Trichloroethylene

The panels shall be examined after 2, 7 and 30 days and shall show no blistering, softening or rusting.

2.1.9 Water - Solvent Mixture Resistance
Panels for this test will be allowed 48 hours drying time at 75° F ± 5°F and 75-85% relative humidity. Panels shall be immersed in a mixture of 50% by volume water and the following solvents at room temperature:.

(a) Methylethyl ketone
(b) Toluol
(c) Trichloroethylene

The panels shall be examined after 2, 7 and 30 days and shall show no blistering, softening or rusting. Solution shall be changed after each grading period.

SURFACE PREPARATION AND APPLICATION CS-CZ-3

Surface preparation and application procedures for Carbo Zinc 11 shall be in accordance with the manufacturer's current application instructions.

The technical data furnished is true and accurate to the best of our knowledge. However, no guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. Prices and cost data shown are subject to change without prior notice.

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AREA CODE 314
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CORROSION RESISTANT COATINGS
FOR MAINTENANCE • EQUIPMENT • TANK LININGS • FLOORS

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HIGH SOLIDS VINYL SPECIFICATION

Polyclad 936-1

The vehicle shall consist essentially of vinyl chloride copolymer resin dissolved in aromatic or ketone-aromatic solvents. The vinyl coat shall display compatibility with, and adhesion to, the cured inorganic zinc primer film when applied over the inorganic zinc primer surface in accordance with manufacturer's printed application instructions of the latest date.

The coating shall be supplied in a single package, at a consistency ready for use, and shall be well ground, and not caked, livered, skinned, or badly settled in the container.

When applied by brushing or spraying, the coating shall deposit a uniform dry film thickness of 5 mils without running or sagging. The vinyl finish coat shall contain not less than 28% pigment by weight and 22% vehicle by weight. Total solids by volume, not less than 33%. The weight per gallon shall be 9.5 $\pm$ 0.5 lb. at 77° F.

The vinyl finish coat shall not be applied when the surrounding air temperature is below 40° F. and shall not be applied when the temperature is expected to drop to 32° F. before the paint is dry.

The vinyl finish coat shall air dry at temperatures of 70°F. or above to a hard, tough film within 4 hours entirely by evaporation of solvents. It shall be dry to touch in about 20 minutes at 70° F. A protective coating system of one coat of inorganic zinc primer applied at 3 mils dry film thickness, topcoated with one coat of Polyclad 936-1 at 5 mils, after 1,000 hours in the weatherometer shall show only very slight discoloration and very slight chalking, and no blistering.

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PRODUCT DATA SHEET

CARBO ZINC 11 •

U.S. Patent 3,056,684

SELECTION DATA

GENERIC TYPE: Self curing, zinc-filled inorganic coating. The coating consists of a basic zinc silicate complex. (Furnished in two parts, Base and Zinc Filler, which are mixed just before use.)

GENERAL PURPOSE: A virtually permanent patented inorganic zinc base coat that protects steel galvanically, eliminating sub-film corrosion. Has outstanding application properties.

RECOMMENDED USES: Carbo Zinc 11 is used as a single coat protection of steel structures in weathering and marine exposures and as a base coat for organic and inorganic topcoats in more severe services. Excellent for the interiors and exteriors of storage tanks containing fuels and organic solvents. Has many uses as a maintenance primer, with or without topcoats, depending on exposure. Used widely in chemical plants, paper mills, refineries and coastal or salt atmospheres including offshore structures. Carbo Zinc 11 conforms to Los Angeles Rule 66 and Bay Area Regulation 3.

NOT RECOMMENDED FOR: Immersion or in direct exposure to acids or alkalies.

TEMPERATURE RESISTANCE:

Maximum – Continuous 750° F
Maximum – Non-continuous 800° F
Minimum – Below minus 60° F

IMPACT RESISTANCE: Very Good

FLEXIBILITY:	WEATHERING:
Fair	Excellent

ABRASION RESISTANCE: Excellent. The abrasion resistance of Carbo Zinc 11 increases as the coating ages.

SURFACES: Steel, cast iron, galvanized steel, stainless steel, aluminum.

COMPATIBILITY WITH OTHER COATINGS: Use over uncoated surfaces, Carbo Zinc 11, Carbo Weld 11 and other zinc coatings as recommended.

SPECIFICATION DATA

SOLIDS CONTENT: By wt. 80% ± 2%

VOLUME OF DRY FILM – THEORETICAL: 1000 mil ft. per gal. kit.

FILM THICKNESS PER COAT: 3 mils

COVERAGE * PER GAL. KIT – VOLUME OF DRY FILM (THEORETICAL): 333 sq. ft. @ 3 mils. As measured by standardized Mikrotest or Elcometer.

***NOTE:** Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

SURFACE PREPARATION: Remove oil and grease deposits. Commercial blasting is satisfactory for non-immersion service. White blasted steel is required for immersion service other than solvents. Pickled steel may be used. Since pickling processes vary obtain specific Carboline recommendation.

TOPCOAT: (Optional) – Can be topcoated with epoxy, epoxy-coal tar, vinyl, acrylic, silicone, modified phenolic and chlorinated rubber types. Consult with Carboline for specific recommendations.

APPLICATION DATA

TEMPERATURE AND HUMIDITY: (During application and drying.) Temperature 0° F to 200° F. Rel. humidity – as high as 95%. Can be applied over slightly damp surfaces.

SUGGESTED CURING TIME: At 50% relative humidity. (Prior to placing in immersion service or before applying topcoats).

85° F or higher	6 – 8 hours
60° F to 85° F	8 – 12 hours
40° F to 60° F	12 – 16 hours
0° F to 40° F	16 – 24 hours

For solvent immersion service allow 48 hours at 75° F or higher.

NUMBER OF COATS: Normally one.

METHOD OF APPLICATION: Spray. May be brushed for touchup.

SHELF LIFE: 9 months minimum.

COLORS:	POT LIFE:
Gray and Green	8 hours @ 75° F

THINNER USED: Carboline Thinner #33 (up to 1 quart per gallon.)

ORDERING INFORMATION

COST PER GALLON: FOB Xenia, Ohio – Net 30 days.

	10's	30's
Carbo Zinc 11 Gray or Green (Kit)	$14.20 Net	$12.80 Net
Carboline Thinner #33	3.20 Net	2.65 Net

THEORETICAL COST PER SQUARE FOOT – BASED ON VOLUME OF DRY FILM: 3.84¢ (3 mils)

THEORETICAL COST PER MIL FOOT: 1.28¢

FLASH POINT: (Cleveland Open Cup)

Carbo Zinc 11 Base Gray or Green	77° F
Carboline Thinner #33	140° F
Carbo Zinc 11, mixed and thinned, ready to spray	86° F

SHIPPING WEIGHT:

1 gallon kit	23#
5 gallon kit	113#
Carboline Thinner #33-per gallon	8.5#

10.00

CARBO ZINC 11 RESISTANCE TABLE

EXPOSURE		CLASS A CONTINUOUS IMMERSION	CLASS B HEAVY FUMES LITTLE, OR NO SPLASH, OR SPILLAGE	CLASS C OUTSIDE WEATHERING AND MILD FUMES
SALTS	Without Topcoat	Fair	Excellent	Excellent
	With Recommended Topcoat	Excellent	Excellent	Excellent
SOLVENTS	Without Topcoat	Excellent	Excellent	Excellent
	With Recommended Topcoat	Excellent	Excellent	Excellent
FRESH AND SALT WATER	Without Topcoat	Good	Excellent	Excellent
	With Recommended Topcoat	Excellent	Excellent	Excellent
ACIDS	Without Topcoat	Not Recommended	Not Recommended	Good
	With Recommended Topcoat	Not Recommended	Very Good	Excellent
ALKALIES	Without Topcoat	Not Recommended	Not Recommended	Fair
	With Recommended Topcoat	Not Recommended	Very Good	Excellent

	Class A	Class B	Class C
RECOMMENDED TOPCOATS OVER CARBO ZINC 11	Carboline 188 HB, 190 HB, 190 HBW, 191, 3912. Carbomastic #14	All of Class A. Phenoline 305, Polyclad 936-1, 2 c. Carboline 3630.	Polyclad 935 Tie Coat plus topcoats of Carboline 1294 or Polyclad 936-1	All of Class A and B. Versikote 53, Carboline 3300, 4631, 4674, 4685

OUTSTANDING PROPERTIES OF CARBO ZINC 11

1. Water insoluble 20 minutes after application.
2. Can be placed in immersion service within 6 hours.
3. Application can be made at 0^{O} F and on surfaces as hot as 200^{O} F.
4. No curing solutions are required.
5. Prevents sub-film corrosion. Protects galvanically.
6. Can be applied at thicknesses up to 6 mils per coat without danger of "mudcracking" or loss of adhesion.
7. In chemical and coastal areas has longer life expectancy than heavy galvanizing.
8. Unnecessary to neutralize, wash or scrub surface prior to topcoating.
9. Carbo Zinc 11 Gray does not contain lead or lead compounds.
10. Carbo Zinc 11 Gray and Carbo Zinc 11 Food Grade are non-toxic and can be used in food plants for immersion and non-immersion service.

CAUTION: Tank linings may be cleaned with steam. water or mild detergent solutions. Do not use acids or alkalies.

The technical data furnished is true and accurate to the best of our knowledge. However, no guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. Prices and cost data shown are subject to change without prior notice.
NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SELLER, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OR LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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PRODUCT DATA SHEET

POLYCLAD 936-1

SELECTION DATA

GENERIC TYPE: Vinyl copolymer. Single package.

GENERAL PROPERTIES: A high build vinyl topcoat readily applied at thickness of 4 - 5 mils in one coat. Can be used directly over Carbo Zinc 11 and other inorganic zinc primers without a tiecoat. Has a low gloss finish and excellent color retention. Can be applied by conventional or airless spray. Builds up heavy thickness on sharp edges. Conforms to Los Angeles Rule 66 and Bay Area Regulation 3.

RECOMMENDED USES: Polyclad 936-1 is principally used as a topcoat directly over Carbo Zinc 11. Can also be used over suitable primers such as Rustbond Primer 6C. Gives excellent protection in industrial environments, including splash, spillage and fume service over vinyl or inorganic zinc primers. Areas of use would be structural steel, pipe exteriors, walls, tank and equipment exteriors -- steel, galvanized steel and cementitious surfaces.

NOT RECOMMENDED FOR: Solvent exposures or immersion service.

CHEMICAL RESISTANCE GUIDE:

Exposure	Splash and Spillage	Fumes
Acids	Very Good	Excellent
Alkalies	Very Good	Excellent
Solvents	N. R.	Fair
Salts	Very Good	Excellent
Water	Very Good	Excellent

TEMPERATURE RESISTANCE:

Continuous	150° F
Non-continuous	180° F

FLEXIBILITY: Good

WEATHERING: Very good

ABRASION RESISTANCE: Good

SURFACES: Properly primed steel, galvanized steel, concrete block and other cementitious surfaces.

PRIMER REQUIRED: Rustbond Primer #6C, Carbo Zinc 11 or others as recommended. Under certain conditions some bubbling or cratering may occur when applied directly over inorganic zincs. This can be eliminated by the use of Polyclad 935 Tie Coat over the inorganic zinc.

COMPATIBILITY WITH OTHER COATINGS: Can be used over vinyls, acrylics, chlorinated rubbers, inorganic zinc, or other recommended coatings.

SPECIFICATION DATA

SOLIDS CONTENT:

By weight	48% ± 2%
By volume	34% ± 1%

FILM THICKNESS PER COAT: 4 - 5 mils

THEORETICAL YIELD: 545 mil ft. / gallon.

THEORETICAL COVERAGE* PER GALLON: 135 sq. ft. (4 mils thickness dry film)

***NOTE:** Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

SURFACE PREPARATION: Apply over suitably primed surfaces or recommended existing coatings. Surfaces must be clean and dry.

COLORS: Normally stocked standard colors are White and Gray 720, 724. Other colors are available on special order and are not returnable.

GLOSS: Low gloss

APPLICATION DATA

METHOD OF APPLICATION: Conventional or airless spray application is recommended for best appearance and edge protection.

GUNS:

	Fluid Tip	Air Cap
Binks #18 or #19	66	66PB
DeVilbiss P-MBC or JGA	E	704

Airless Spray
Use .015 to .017 orfice with 2000 psi. pressure at tip

DRYING TIME: If topcoated, allow a drying time of 18 hours @75° F.

FINAL DRYING TIME: 24-48 hours @75° F.

SHELF LIFE: 1 year minimum.

THINNER USED: Carboline Thinner #25.

ORDERING INFORMATION

COST PER GALLON: FOB Xenia, Ohio -- Net 30 days.

	1's	5's
Polyclad 936-1 White, Gray 720, 724	$8.30 Net	$7.80 Net
Carboline Thinner #25	3.20 Net	2.65 Net

THEORETICAL COST PER SQUARE FOOT: 5.7¢ (4 mils dry)

THEORETICAL COST PER MIL FOOT: 1.43¢

SHIPPING WEIGHT:	1's	5's
Polyclad 936-1	11 lbs.	52 lbs.
Carboline Thinner #25	9 lbs.	45 lbs.

FLASH POINT: (Cleveland Open Cup)

Polyclad 936-1	70°F
Carboline Thinner #25	105°F

The technical data furnished is true and accurate to the best of our knowledge. However, no guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. Prices and cost data shown are subject to change without prior notice.

NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SELLER, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OR LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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JUL 19 1971
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I 405-1(22)
7310

July 6, 1971
Salem, Oregon

R. L. Schroeder
Metropolitan Engineer
Portland

Attention: Ed Hardt

East Fremont Interchange
Revised Deck Pouring Schedule
Unit A
Contract 7310

At various times the East Fremont contractor has requested consideration of revised deck pouring schedules. His latest request was to be permitted to pour a portion of SW and WS Unit 1 and WE Unit 4 and EW Unit 3.

I am enclosing four copies of a letter dated June 21st using a proposed revised deck pouring schedule for the above-mentioned units. As indicated on the attached sketch, Stage 1 for all four of the above-mentioned units could be poured prior to the closing section of the girder from field splice 9 to expansion joint 12.

Inasmuch as this is a change in the plans, I would suggest a price agreement be written to cover any additional costs as to revised deck forming or items which may arise in erecting the last section of steel beams, as any costs of this nature should be the contractors.

Ivan D. Merchant
Bridge Engineer

IDM/ag
Attachments

NOTED
A. E. Johnson

Attachment

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JUL 20 71
OFFICE OF
STATE HIGHWAY ENGINEER

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS | HNTB

1805 GRAND AVENUE, KANSAS CITY, MISSOURI 64108
TELEPHONE: CODE 816, 474-4900
CABLE: HOWARDNEED KANSASCITY

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ROBERT G. ORANGE
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BERNARD H. ROTTINGHAUS
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JOSEF SORIN

ERNEST E. HOWARD
1903 - 1953
HENRY C. TAMMEN
1908 - 1961
FRANK E. BLEISTEIN
1945 - 1955

June 21, 1971

Mr. Ivan D. Merchant
Bridge Engineer
Oregon State Highway Department
State Highway Building
Salem, Oregon 97310

Dear Mr. Merchant:

Re: East Fremont Interchange
Unit A, Contract 7310

The Attached Figure I is a deck pouring sequence for EW Unit 3 and WE Unit 4 based on all steel erected except the portion from Expansion Joint 12 to Field Splice 9, as per your telephone call last week.

Based on rigorous calculating made for the SW-WS Unit 1 structure under similar loading conditions and the original calculations for EW-3 and WE-4, there should be no appreciable effect on the final stresses, camber or stability if this procedure is followed. Pouring details not shown on Figure I should be in accordance with the plans.

Yours truly,

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

Jack Kopetz

Jack Kopetz

MJK/ps

Attachment

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JUN 23 1971
BRIDGE DIVISION

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JOSEF SORKIN

ERNEST E. HOWARD
1903 - 1953
HENRY C. TAMMEN
1906 - 1961
FRANK C. BLEISTEIN
1948 - 1969

June 21, 1971

Mr. Ivan D. Merchant
Bridge Engineer
Oregon State Highway Department
State Highway Building
Salem, Oregon 97310

Dear Mr. Merchant:

Re: East Fremont Interchange
Unit A, Contract 7310

The Attached Figure I is a deck pouring sequence for EW Unit 3 and WE Unit 4 based on all steel erected except the portion from Expansion Joint 12 to Field Splice 9, as per your telephone call last week.

Based on rigorous calculating made for the SW-WS Unit 1 structure under similar loading conditions and the original calculations for EW-3 and WE-4, there should be no appreciable effect on the final stresses, camber or stability if this procedure is followed. Pouring details not shown on Figure I should be in accordance with the plans.

Yours truly,

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

Jack Kopetz

Jack Kopetz

MJK/pa

Attachment

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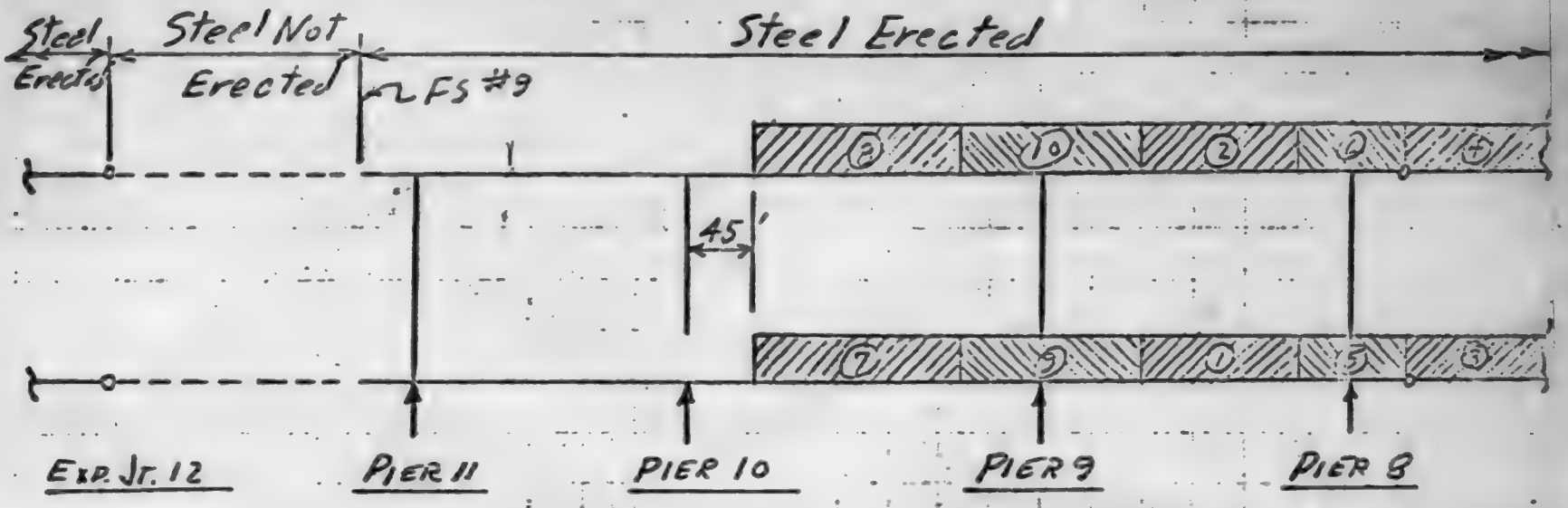
JUL 23 1971
BRIDGE DIVISION

MADE BY _____ DATE _____ JOB. NO. _____
CHECKED BY _____ DATE _____ SEC. NO. _____
SHEET NO. _____

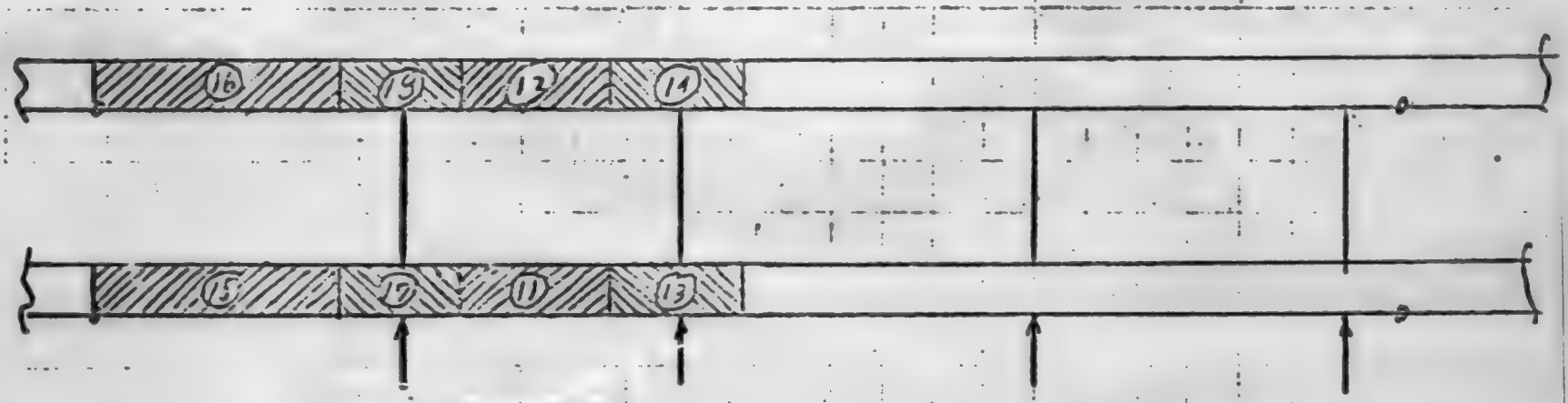
EAST FREMONT IIC UNIT A

FIGURE I

WE UNIT 4, EW UNIT 3



STAGE I



STAGE II

(All steel erected)

PERMISSIBLE DECK POURING SEQUENCE

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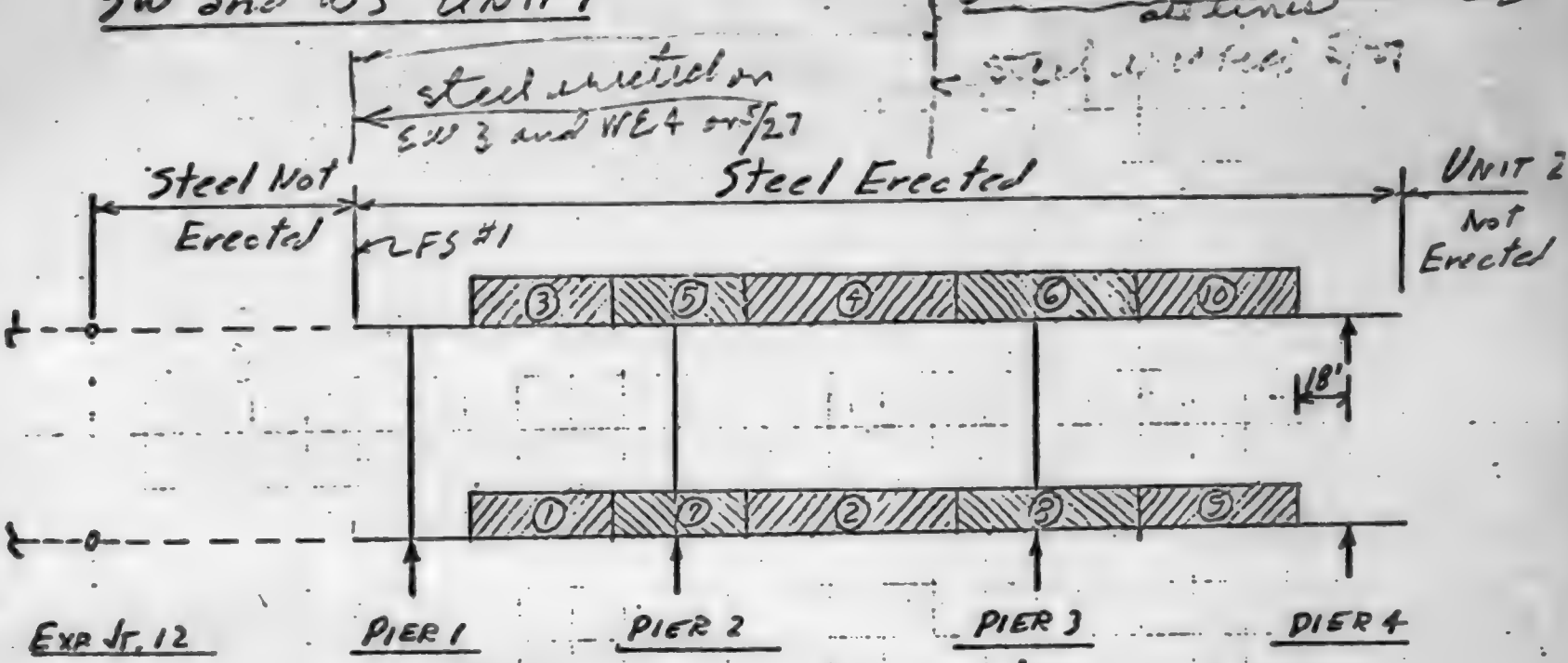
28 1971

FORM NO. 6-1162

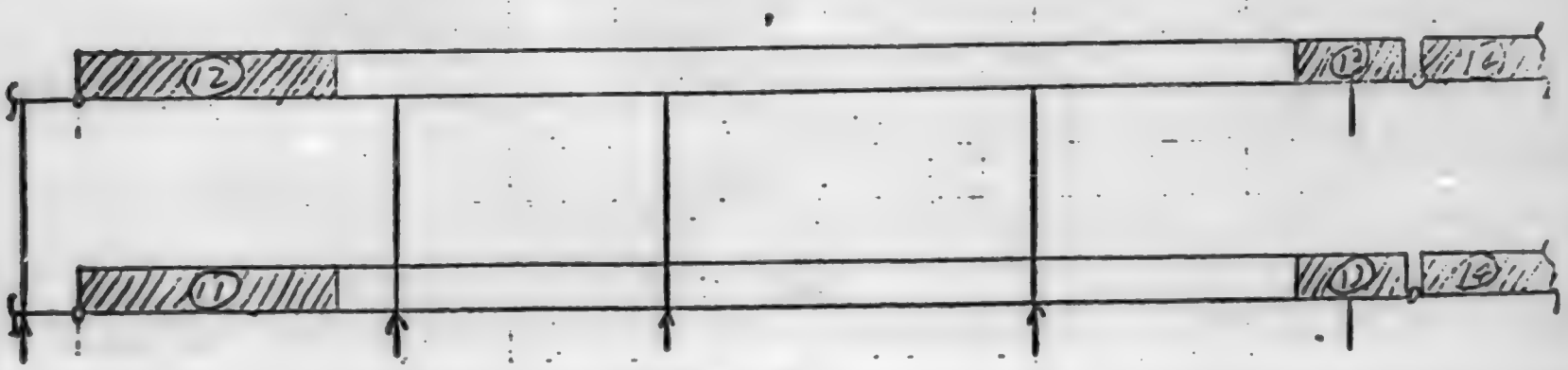
FIGURE I.

SW and WS UNIT 1



STAGE I

LOAD 1 is DL. steel plus pour 1 with qdrs. non-composite.
LOAD 2 is Deck Pour 2 with qdrs under POUR 1 composite
LOAD 3 " " " 3 " " " POURS 1 & 2 " "
ETC.



STAGE II

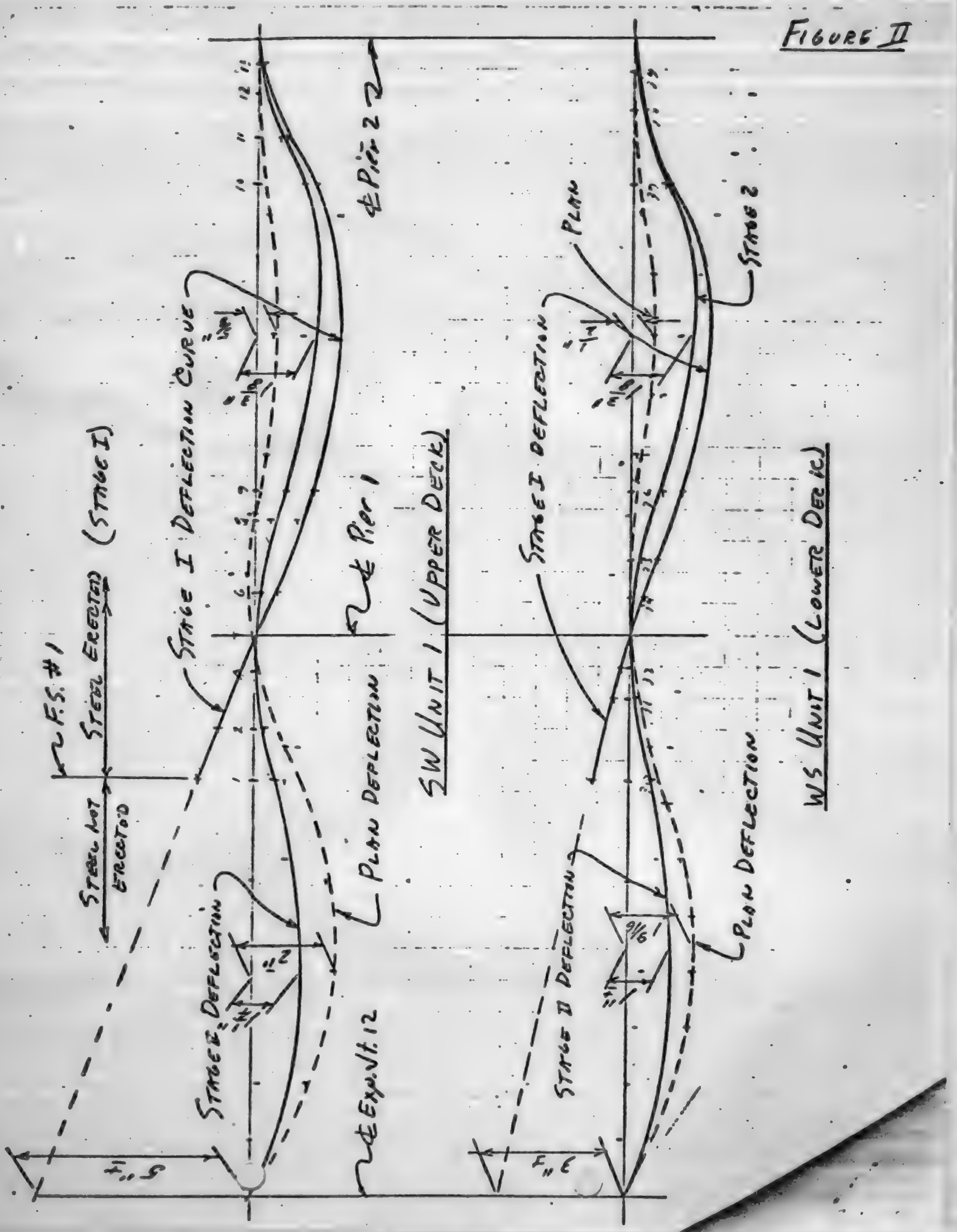
LOAD 11 is DL STL SPAN 1 AND UNIT 2 plus POUR 11 with qdrs thru pour 10 composite
LOAD 12 is DECK POUR 12 with qdrs thru POUR 11 composite
LOAD 13 is DECK POUR 13 AND 14 (UNIT 2)

JEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS

MADE BY MJK DA 5-20-71 JOB. NO. 1922
CHECKED BY ____ D. ____ SEC. NO. ____
SHEET NO. ____

JLATIONS FOR EAST FREMONT I/C

FIGURE II



FORM NO. 4-1163

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OREGON STATE HIGHWAY DIVISION

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

I-405-8(a) 314
7310

June 24, 1971

Drake-Willamette Joint Ventures
1201 North Loring Street
Portland, Oregon

Re: East Fremont Interchange

Gentlemen:

Vinyl paint supplied to you by Enjay Chemical Company is showing a definite tendency to discolor. This is paint which has been in place for about two months and which has a southern exposure. Preliminary investigation by the State's laboratory indicates that this discoloration is probably due to the Ketone solvents and organic toners used in the manufacture of the paint.

This discoloring tendency of the top-coat of paint is completely unacceptable to the Highway Division. You are directed to take whatever steps are necessary to correct the paint formulation in order to eliminate this condition.

NOTED
A. E. JOHNSON

Very truly yours,

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson
Ivan Merchant
John Jenkins
Robert Shotwell

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JUN 28 1971
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FORM E-30 (4-70)
JUN 15 1971
FOR FILING

I-405-8(22)304
7310
To:

OP 02600-784

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

June 10, 1971

NOTED
A. E. JOHNSON

SUBJECT: Deck Sealant
East Fremont Intch., Contracts 7310,11 & 12
West Fremont Intch., Contract 7214
Fremont Bridge, Contract 7276

Mr. R. L. Schroeder
Metropolitan Engineer

METRO

Attention Mr. Edward L. Hardt
Metro Bridge Const. Engr.

Approval has been received from the Federal Highway Administration to place a linseed oil deck sealant on the subject structures. I am enclosing a copy of the specification for this deck sealant treatment.

Also attached is a copy of the contract revision authorization form in which the Federal Highway Administration's approval of this contract revision is indicated.

Walter J. Hart
Bridge Administration Engineer

WJH:dh
Enclosures

cc A. E. Johnson
A. A. Rear
H. A. Schell, Jr.

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JUN 11 1971
OFFICE OF
STATE HIGHWAY ENGINEER

LEE JOHNSON
ATTORNEY GENERAL

I-415-8(22)201
1310

DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6348

TRIAL DIVISION

THOMAS D. O'DELL
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. HALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS — JAMES F. LARSON
JAMES P. CRONAN, JR. — JOHN R. MCCULLOCH
QUINTIN B. ESTELL — FRANK C. MCKINNEY
MICHAEL GILLETTE — EARL M. PRESTON
LAWRENCE J. HALL — R. KEN ROBERTS
LESLIE B. HAMPTON — GEORGE E. ROHDE
ROBERT A. HOLLAND — JAMES A. SANDERSON
DONALD J. HOWE — JACK L. SOLLIS
E. DAVID LADD — CARLOTTA H. SORENSEN
ASSISTANT ATTORNEYS GENERAL

June 7, 1971

Mr. Tom Edwards
Deputy Highway Engineer
Oregon Division of Highways
Salem, Oregon 97310

Re: Impossibility of Performance - Painting - Fremont Bridge
Highway Contracts Nos. 7214, 7276, 7310, 7311, 7312.

Dear Tom:

Special Provisions, Section 414, Painting New Metal Structures, Inorganic Zinc Silicate-Vinyl Coating, are found to be the same in each of the above contracts.

The contractor, in the special provisions section dealing with the "Scope of the Work", is informed that "all interior and exterior surfaces of structural steel members * * * shall be painted with one coat of selfcuring inorganic zinc silicate primer and one coat of compatible high-solids vinyl paint to a combined dry film thickness of not less than 8 mils * * *". (emphasis supplied)

The special provisions dealing with "Painting", state that the paint system for the metal work shall consist, inter alia, of the following:

Primer Coat - In organic zinc rich coating, a minimum dry film thickness of 3 mils.

Tie Coat - If recommended by the manufacturer of the prime and vinyl paint, to be applied in accordance with its recommendation.

Finish Coat - High build vinyl finish coat, a minimum dry film thickness of 5 mils. (emphasis supplied)

The special provisions pertaining to the vinyl finish coat, provides that this coat, when applied in one coat over the inorganic zinc primer, or the tie coat if required, "* * * shall not exhibit any 'pinholing' characteristics".

A reading of the foregoing in conjunction with the balance of the special provisions relating to painting convinces the writer

NOTED
TOM EDWARDS

of the following:

(a) The contractor was directed to use a one coat paint system.

(b) A tie coat was not to be used unless recommended by the manufacturer of the prime and vinyl paint.

Enjay Chemical Company, manufacturer of both paints, submitted documented data on August 12, 1969, to the contractor for submission to the engineer for approval. This was submitted in accordance with the special provisions relating to Inorganic Zinc Silicate Primer. The Enjay Co. brochure, Section 18, asserts Rust-Ban VM 5537 is completely compatible with Rust-Ban 191, without a tie coat. I assume the foregoing Rust Ban paint is the same as the inorganic zinc silicate primer and vinyl finish paint provided for in the special provisions.

The special provisions provide the vinyl finish coat is to be applied after erection. In applying the finish coat the contractor has been unable to do so without the finish product exhibiting excessive amounts of "pinholing" characteristics. The problem was brought to the attention of the Enjay Chemical Co. After expending over one month in an effort to totally eliminate the bubbling and pinholing characteristics of the 5 mils dry coat of vinyl applied over the inorganic zinc silicate primer, Enjay Chemical Co., by letter of November 6, 1970, to Frank Klaas, painting sub-contractor, states "it is our technical opinion that a totally bubble free pinhole free high build coating of O.S.H.D. formulation spec. vinyl is impossible to obtain over large surface areas on a consistant basis." (emphasis supplied)

It is the law of this state that a contractor is excused from the performance of a contract if the same is impossible of fulfillment due to causes beyond his control and without fault or negligence on his part. Dorsey v. Oregon Motor Stages, 183 Or 494, 194 P2d 967.

Impossibility of performance means not only strict and literal impossibility, but also impracticability because of extreme and unreasonable expense, injury or loss involved. Savage v. Peter Kiewit Co., 249 Or 147, 432 P2d 519, 437 P2d 487.

The Oregon Court, in the Savage case, states that in applying the doctrine of impossibility, courts recognize that unexpected difficulty or expense may approach such an extreme that practical impossibility exists. To operate as a discharge, the hardship must be so extreme as to be outside of any reasonable contemplation of the parties and the unforeseen hazard not one that reasonably should have been guarded against.

Another factor to be considered in dealing with the case at hand is that the State impliedly warrants that the specification

it furnishes a contractor will be adequate for producing the desired result. United States v. Spearin, 248 U.S. 132, 39 S. Ct. 59, 63 L. Ed. 166 (1918), A. Teichert & Son, Inc. v. State, 48 Cal. Rptr. 225, 283 Cap Apps. 2d, 736.

I am informed that while the desired results cannot be obtained by following the contract specifications, which also provide the contractor shall not deviate from them, satisfactory result could be obtained by the use of a tie coat and the application of the vinyl paint in multiple coats.

If this be true, the contractor, in my opinion, would be legally entitled to his additional costs if directed to do so.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas
Assistant Attorney General
and Counsel to
Highway Division

LIL:mjg
cc- R. L. Porter

RECEIVED
STATE HIGHWAY ENGINEER

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I-405-5(22)214
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
June 2, 1971

To: A. E. Johnson
Assistant State Highway Engineer
State Highway Building
Salem

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No. 7310
Inorganic Zinc Paint

On a recent inspection trip of the East Fremont Interchange, Bob Pillsbury, Herb Schell's assistant, requested that a detailed study of the inorganic zinc film thickness in one bay of a trapezoidal girder be made in order to determine if a spraying pattern could be identified. When I discussed this request with you, you asked for a chance to review this data before it was given to Mr. Pillsbury.

Attached you will find one sheet of field notes indicating the results of this study. On the back of the sheet, you will find a tabulation of these readings which indicates an average thickness of 2.8 mils. The girder checked had what was determined "moderate rust" by Mr. Shotwell's people which to them meant that less than 5% of the steel was rusty. It was painted sometime during the week prior to October 23, 1970 and was painted with Rust Ban 191. After your review, assuming you have no objections, this data should be forwarded to Mr. Pillsbury.

Mr. Pillsbury and Mr. Bryant, both of the FHWA, made an inspection of our current painting procedures on May 13, which resulted in their inspection report No. 20 on the West Fremont Interchange. Page 4 of this report lists six recommendations and you have asked for our comments on these. Our comments are in the same numerical sequence as the original report.

1. No comment.

2. Prior to the problem of wide scale rusty steel coming up, we had an agreement with the Contractor that would allow him to repair damaged inorganic zinc in the field without sandblast preparation of the damaged area. This is technically not allowed by our painting specifications. However, this change was accomplished by the substitution of Rust Ban 193 for Rust Ban 191. The 193 is such that it does not need a sanblasted surface for adherence to the steel. The point is that contrary to our specifications, sandblasting is not necessarily required for field repair work, so long as Rust Ban 193 is being used. Also the cleaning procedure being used, power wire brushing, has been verbally approved by the Enjay Chemical Company.

   With regard to rust staining, since the stain comes from an outside source, apart from the painted surface, we have always felt that all that is necessary in the way of cleaning is to remove the loose material which would prevent a bond between coats of paint; therefore, sandblasting for removal of rust staining does not appear to be necessary.

NOTED
A. E. JOHNSON

3. When the repairs for rusty zinc were started, the instructions were that in order not to hold up concreting operations it would be permissible to apply vinyl over zinc that was 24 hours old. It develops that on the East Fremont project no zinc was top coated with less than 48 hours cure and on the West project there was a "very limited" situation where the cure time was between 40 and 48 hours. Generally there were several days of cure time between coats. Both Resident Engineers now have instructions to allow at least 48 hours of cure time.

4. The inorganic zinc is being washed with a detergent prior to placing a vinyl top coat.

5. As you know, we are ignoring the bubble and pin hole problem in the insides of the girders in favor of job progress. We are now experimenting through Harlan Associates and the Contractors with ways to obtain a bubble-free surface on the outsides of the girders.

6. The inorganic zinc paint which was applied in Vancouver, B. C. was measured for thickness by PTL at the place of application. The vinyl which is being applied at the job sites is being measured for conformance to required thickness by the Resident Engineers' crews as required by the Contractor.

Please advise if further information is desired.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

EIH:pb

Encs

cc: Ivan Merchant
Robert Shotwell
John Howard

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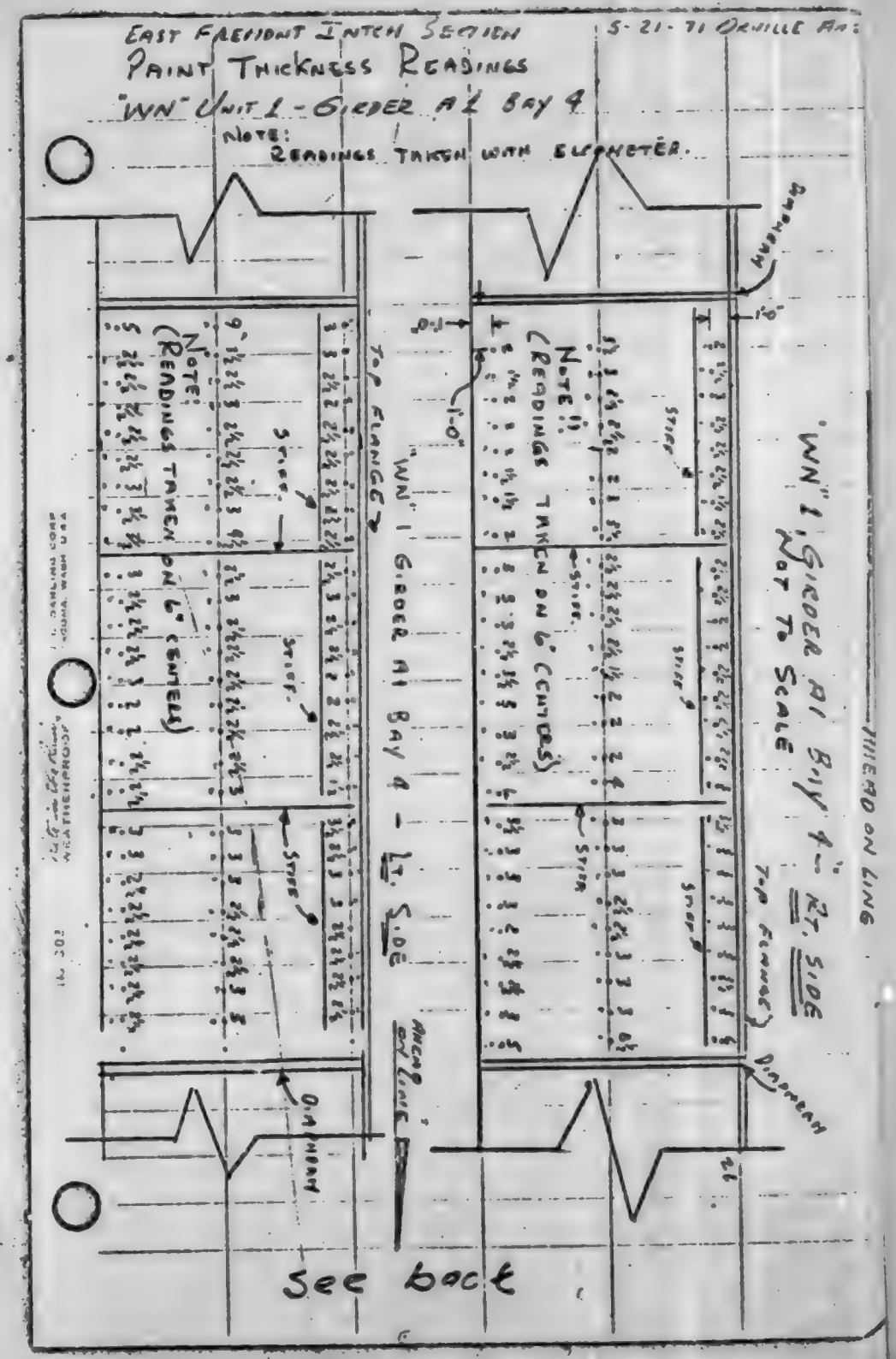
JUN 4 1971
OFFICE OF
STATE HIGHWAY ENGINEER

Mils		No. Readings		
1 1/2	x	6	=	9
2		19		38
2 1/2		69		172.5
3		44		132
3 1/2		10		35
4		1		4
4 1/2		1		4.5
5		2		10
6		2		12
8 1/2		1		8.5
9		1		9
		156		439.5 / 156 = 2.8 mils Avg.



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FORM E-8

FOR FILING

F 1105-8(22)
7210

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
May 27, 1971

To: A. E. Johnson
Assistant State Highway Engineer
State Highway Building
Salem

SUBJECT: East Fremont Interchange
Contract No. 7310
West Fremont Interchange
Contract No. 7214
Enjay Chemical Company

On Wednesday afternoon, May 26, Mr. Don Blue of the Enjay Chemical Company visited me for about an hour and a half and discussed the vinyl paint situation on the East and West Fremont projects for which Enjay is supplying the paint.

Previously Don had called the manufacturers of Super Koropon, DeSoto, Inc., about the application of Super K and he wanted to pass on the information that he had obtained. He had talked to Mr. Dan Miller in DeSoto's laboratory. Listed below are some of the things relative to Super K that Don passed on to me.

1. Super K should be applied using conventional spray equipment instead of the airless equipment which was used earlier in the week on the West Fremont. This should explain the difficulty experienced on the West Fremont in getting this material applied to the proper thickness in one application.

2. DeSoto's experience with topcoats over Super K has been with Polyurethanes and epoxies as used in the aerospace industry. They have had no experience with vinyl topcoats. Don cautioned that we should monitor the vinyl which we have applied over the Super K to make sure that there were no long term adherence problems. He said the nature of vinyl is such that it could appear to be adhering well to the epoxy but later could develop adherence problems.

3. The Super K, being epoxy, gets harder with time and if its allowed to cure in the range of one week, it should be given a mist coat of Super K since the vinyl solvents cannot dissolve the epoxy surface which is necessary in order to get good adherence. He thought according to the data from Mr. Miller that the Super K could be top-coated after two to three hours of cure time. Mr. Miller also told Don Blue that the solvents in Super K are "very fast" and that there should be no problems with painting of automobiles under the structure.

Don mentioned several problems connected with the Super K that will give the Fremont Contractors problems and will, therefore, affect the price that they submit to us for the addition of this paint. They are:

NOTED
A. E. JOHNSON

1. The question of how many "passes" will be necessary to get the required coverage. As you know, we are considering going to a mist coat rather than the 0.7 to 1 mil coverage originally called for but until this is resolved, the Contractors' price quotes may reflect their uncertainty.

2. The nature of the Super K will probably require that the painters wear respirators while they are applying the paint. This, of course, will add to the application cost.

3. The Super K which was applied on the West Fremont job on May 24, exhibited considerable "dusting". This is the over-spray which dries in the air and settles on the adjacent area. This will have to be cleaned up before the vinyl can be applied. I pointed out to Don that the Super K will only be applied to the outsides of the girders but he still felt that this would be a problem; at least in the Contractors' minds.

4. The maximum time limitation on the application of vinyl over the Super K, which was mentioned by one of the painters in our Tuesday meeting, will generate questions and, therefore, increase the Contractors' quotes because due to our unpredictable weather conditions, it is possible that Super K could not be top-coated with vinyl until such a time that the above mention mist coat would be required, thus nullifying the first coat of Super K.

At our meeting of last Tuesday you discussed with Mr. Blue Enjay's responsibility with regard to the bubbling problem. In this connection, Don showed me copies of two letters dated late in March of 1971 addressed to the painting subcontractors on the East and West projects, Kreiter and Klaas, which were in the form of Enjay's proposals for the solution to the vinyl bubbling problem. Don allowed me to read these letters but didn't allow me to keep them. These proposals were:

1. Change the vinyl paint formulation to what Don called No. 4518, which has slower evaporating solvents. He said this material has been tested by our laboratory. This was to have been applied with two equal passes with a two minute interval between or

2. The use of wash primer, No. 5520, would be applied 0.75 mils thickness would be followed by 4.5 mils of No. 4518 30 minutes later.

These letters closed by giving approximate coverages per gallon of these materials and price quotations for same.

Under the circumstances I find it hard to understand why the prime contractors have never advanced Enjay's proposals for our consideration.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: Ivan Merchant
John Howard
Robert Shotwell

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MAY 28 1971
OFFICE OF
STATE HIGHWAY ENGINEER

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MAY 28 1971
FOR FILING

I-4 F-1(22)
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
May 26, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange, 7214
Fremont Bridge, 7276
East Fremont Interchange, 7310
Proposal For The Use Of
Super Koropon

On May 25, at 1:30 PM a meeting was held in the Metropolitan Section conference room to discuss the addition of Super Koropon spray primer to the paint system for the Fremont Bridge complex. Listed below are those who attended the meeting.

Henry Hannan	Anderson-Hannan
* Ralph Hannan	" "
* John R. Kreites	" "
R. S. Everett	" "
* H. A. Anderson	" "
Bill Choate	Murphy Pacific
* E. D. (Jack) Geer	" "
* W. A. Bugge	Drake-Willamette, Joint Ventures
R. E. Grant	" " " "
* F. G. Drake	" " " "
Ron Owens	Klaas Bros., Inc
* Frank Klaas	" " "
* D. R. Blue	Enjay
* R. O. Cunningham	OSHD
* Ivan Merchant	"
* Alfred A. Rear	"
* J. D. Howard	"
* R. E. Shotwell	"
Charles Lobaugh	"
* A. E. Johnson	"
Ed Hardt	"

* Received a copy of this memo.

Prior to this meeting, the writer contacted the Contractors on the three Fremont projects (Anderson-Hannan, Murphy Pacific and Drake-Willamette) and asked them to work up a cost figure for the addition of Super Koropon spray primer to be applied from 0.7 to 1 mil in thickness between the zinc and vinyl coats. Mr. Johnson opened the meeting by referring to Harlan Associates research on the vinyl bubbling problem. They have tried

5-27-71

INCLUDED IN E. MEMO

Mobile, Enjay and Carbolene vinyls with various combinations of primers. The only combination that they have found which successfully eliminates bubbling and p'n holing is the Super Koropon. Harlen's recommendation is for 16 hours of cure time for this material but it may be possible to cut this cure time down depending on field conditions.

Mr. Johnson went on to say that the above proposal for the addition of Koropon is being made because it offers the only method of applying vinyl without bubbling. Since we have not received any proposals from the paint suppliers for a method to apply five dry mils of vinyl in one coat without bubbles, it must be assumed that the Koropon method is the only method which will do the job.

Mr. Johnson also mentioned that the vinyl samples which Harlan had received from the job site had been thinned with MEK which tends to defeat the purpose of our specification and causes an increase in the bubbling problem since the addition of MEK increases the amount of solvents which must escape through the surface of the vinyl. He went on to say that we will take the cost figures for the Koropon and ask the FHWA to participate in this cost. He mentioned that we have recently been cited by the Federal people regarding our current repair work on the deficient zinc on the East and West projects since they feel that any cleaning of rusted areas should only be done by sand blasting.

Mr. Johnson reported that we have just received a proposal from Murphy Pacific quoting the extra cost for a two-coat high-build vinyl paint job. He said that he didn't believe this was the answer to the vinyl problem since this would probably still result in some bubbling.

Mr. Anderson reiterated his concern for the delays to the project caused by the painting problems and said that he didn't think they could pour concrete decks fast enough in order to get all of the girders painted this year. He said that if it's necessary to use extra staging in order to paint the girders before the concrete decks are place, he would expect the State to bear the extra cost involved.

Mr. Everett and Mr. Kreiter expressed their concern for paint damage to automobiles under the work area when the Koropon is applied. The specifications for this paint indicates that it dries dust free in 15 minutes which would indicate that it could cause automobile damage. Mr. Kreiter mentioned that he had called the people who manufacture this paint and the man he talked to had had no experience on drying time as related to the over spray problem. His experience had been on aluminum applied in an aircraft plant.

Frank Klaas inquired as to a maximum drying time for the Koropon before application of vinyl. He is concerned that if it's allowed to dry for too long a time, that it will get a slick, hard surface with resulting poor adhesion for the vinyl.

Don Blue, Enjay's representative, said that their lab does not agree with Harlan's findings, that the Koropon is the only answer to the bubbling problem. They have tried a wash primer and epoxy primer and have had "good luck" over "aged" zinc. He did say that these primers did not prevent bubbling on "new" zinc. He suggested that we try Enjay's VY 6520 vinyl primer to determine if it will eliminate the bubbling problem. Mr. Johnson replied that he thought it was a little late for experimenting with Enjay's products and that this should have been done in the last several months. Mr. Blue said that he felt that a good paint job could be produced with a washed primer and two coats of vinyl. Mr. Johnson asked for his recommendations in writing and Mr. Blue said these would be submitted to the Contractors. Mr. Blue also inquired as to the curing time of the zinc in the experiments done by Harlan and Mr. Johnson said that there was a 48 hour cure time of 3 to 4 mils of RB 193 zinc.

Mr. Anderson said that he would offer a preliminary figure of $90 to $100,000 for the application of Koropon. This figure was for the exterior girders only assuming that the work could be done by November 1, and included no liability for paint damage. Jack Geer said that he would shortly submit a figure for the Koropon also with no acceptance of liability.

Mr. Johnson summarized the meeting by stating that the State requests cost figures from all three contractors for the application of Super Koropon and also for the application of two separate coats. After these figures are received, the State will request the FHWA people to participate in this cost. With their concurrences the work will proceed on whichever basis is selected. With regard to the zinc paint on the girder exteriors, he said a final decision has not been made as yet, but he personally felt we should have a minimum of 2 mils of zinc and preferably 3 mils.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

RECEIVED
MAY 27 1971
OFFICE OF
STATE HIGHWAY ENGINEER

DeSoto

aerospace products

NAME: SUPER KOROPON FLUID RESISTANT PRIMER, YELLOW, BMS 10-11H, RULE 66

CODE: 513-706 Primer Base 910-707 Curing Solution

DESCRIPTION: A chemically cured epoxy. This product is designed to provide maximum protection for aluminum and magnesium against conditions of humidity, salt fog, fuel and hydraulic fluids, including Skydrol 500. The coating will withstand immersion in any of the above-mentioned fluids or environments for indefinite periods of time.

SURFACE PREPARATION: Designed for use on chemically cleaned aluminum and magnesium alloy surfaces. Excellent results will be obtained on practically all clean, paintable surfaces.

MIXING: Mix equal parts by volume of 513-706 and 910-707 just prior to use. Usable pot life at 77°F. is 8 hours with a correspondingly shorter pot life at higher temperatures and a longer pot life at lower temperatures. Spray to dry film thickness of 0.5 to 0.7 mil

APPLICATION: Any standard spray equipment may be used. Good results are obtained with DeVilbiss MBC spray gun, air cap #765, E or FF fluid tip and E or FF needle, Binks #18 spray gun, 63-PB air cap, 63-C fluid tip and 63-A needle. Equivalent spray equipment is available from other manufacturers.

DRY TIME:

Dust free	20 minutes
Dry to handle	40 minutes
Recoatable	1 hour
Ultimate cure	24 hours

Allow 6-8 hours elapsed time before putting the painted article into service. Full cure is obtained in 24 hours at 77°F. Longer dry times to full cure are necessary at lower temperatures.

PHYSICAL CONSTANTS:

513-706 Base

Weight per gallon	11.15 lbs.
Weight non-volatile	61.5%
Weight pigment	39.3%
Volume non-volatile	39.1%

DeSoto, Inc. 1700 South Mt. Prospect Road, Des Plaines, Illinois 60018
BERKELEY, CALIF. CHICAGO, ILL. CHICAGO HEIGHTS, ILL. GARLAND, TEXAS GREENSBORO, N. C. PENNSAUKEN, N. J.

"Any technical information presented herein is based on generally accepted analytical and testing practices and is believed to be accurate. No guarantee or warranty of any nature is expressed or implied."

DeSoto, Inc.

Sheet
-706/910-707
er Koropon F. R. Primer, Yellow
10-11H, Rule 66

SICAL CONSTANTS
nt'd.)

910-707 Curing Solution

Weight per gallon	6.85 lbs.
Weight non-volatile	6.3%
Volume non-volatile	5.0%

CAUTIONS:

The curing solution is an activator and must be used in the ratio recommended (equal parts base and activator.) No further thinning required. This product is not adversely affected by high humidity conditions; low temperatures, however, will retard curing speed. Painting should not be attempted at temperatures lower than 40°F. Use methyl-ethyl-ketone or methyl-isobutyl-ketone in combination with ethylene-glycol-monoethyl ether (Cellosolve) for clean-up. Clean-up should be done promptly to avoid cured paint remaining in or on equipment.

E HANDLING:

Normal precautions associated with the use of high vapor pressure, low flash point solvents (MEK) should be observed. Avoid prolonged skin contact and excessive inhalation. Wash hands thoroughly before smoking or eating.

R POLLUTION REGULATIONS:

This system is compatible with Rule 66 and Regulation 3.

12-1-69

I-405-8(22)304
7210

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE · SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

21 May 1971

Our File: P-5711

AIRMAIL

This report is presented as the confidential property of our clients. For our mutual protection, authorization for publication in any manner is reserved pending our written consent.

Department of Transportation
Highway Division
138 State Highway Building
Salem, Oregon 97310

Attention: Mr. A. E. Johnson, Assistant Highway Engineer

Gentlemen:

1. Confirming our telephone conversations of 20 May 1971 bubbling and pinholing of the vinyl finish coat (Enjay 5537) occurred on test panels prepared and treated as per paragraphs 6.2 and 6.3 of our report dated 11 May 1971. No bubbling or pinholing of the Vinyl finish system was observed on test panels prepared as per paragraph 6.1 (Koropon treated panels, three hours curing time allowed for Koropon before application of Vinyl finish coat).

2. The Super Koropon is suggested as a tie coat and/or primer for use in alleviating the bubbling and pinholing problem occurring when the Vinyl finish coat is applied and is not intended to replace the required inorganic zinc coating.

3. DeSoto Incorporated is shipping ten gallons (five 2-gallon kits) of Super Koropon to Edward Hardt's attention.

Respectfully submitted,

Harold R. Harlan Jr., Technical Director

NOTED
A. E. JOHNSON

HARLAN ASSOCIATES, INC.

HRHJr:mp
Orig. & lcc

RECEIVED
MAY 24 1971
OFFICE OF
STATE HIGHWAY ENGINEER

21 May 1971

Our File: P-5711

AIRMAIL

State of Oregon Highway Division
Metropolitan Section
Department of Transportation
5821 North East Glisan Street
Portland, Oregon 97213

This material is presented as the property of our clients for our mutual protection, authorization for publication in any manner is reserved pending our written consent.

Attention: Mr. Edward L. Hardt, Bridge Construction Engineer

Gentlemen:

1. De Soto Incorporated is shipping ten gallons (five 2-gallon kits) of Super Koropon to your attention as requested by Mr. Johnson. The intent is to conduct a field test using the Koropon as a tie coat and/or primer between the inorganic zinc and Enjay 5537 finish coat. Data sheets covering mixing and application are to be included with the shipment.

2. We suggest a drying time of sixteen hours or over-night be allowed for the Koropon before application of the Vinyl finish coat on the first test. We have achieved good results in the laboratory top coating the Koropon after three to four hours drying time: however, we would prefer a sixteen-hour cure for the first test and then cut back to three or four hours for subsequent tests.

3. Super Koropon is a catalyzed epoxy and the applicator should be cautioned not to allow his equipment to stand for extended periods when not in use without cleaning.

4. If you have any questions, please call.

Respectfully submitted,

Harold R. Harlan Jr., Technical Director

HARLAN ASSOCIATES, INC.

HRHJr:mp
Orig. Mr. Edward L. Hardt
lcc Mr. A. E. Johnson

HARLAN Associates, Inc.
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO 3
CALIFORNIA

RECEIVED
MAY 27 1971
FHWA FIELD

FORM FHWA-121 (12-6

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: May 18, 1971

In reply refer to: 08-35.6

SUBJECT: Oregon Projects I-405-8(20)303 and I-405-8(22)304
Structural Painting

Attached are two Project Stage Inspection Reports for the West and East Fremont Interchanges.

The reports reflect that the contractor's painting performance shows deviations from the specifications. A great deal of study and inspection work has been devoted to this project. Harlan and Associates have been engaged to review and recommend concerning this problem.

The contractor is proceeding on your instructions. In accordance with the accepted procedures and our governing policies, deviations from specifications must be corrected, justified, changed, or a reduction in price made in accordance with sound engineering practices. We have received no supporting information which justifies a change from specifications.

Please furnish us your response concerning the above question including the justification for the change.

cc:
Region (08-00.35)
WNBryant
RWPillsbury

cy to [illegible] 5.25.71

NOTED
TOM EDWARDS

RECEIVED
MAY 19 1971
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

STATE COPY

FORM PR-33B (REV. 3-68)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

CONSTRUCTION INSPECTION REPORT

(PPM 20-6.1)

Region
Dist. HQ
Green, Engr Coord

(Check appropriate box) ☐ Contact ☒ Project Stage Inspection ☐ Final Inspection

Region No.	Report No.	County	Division
8	18	Multnomah	Oregon
Date of Inspection	**Inspected or Made By**		**Project No.**
5-11-71	W. H. Bryant, Area Engineer		* I-405-8(22)304

In Company With
Ed Hardt, Asst Metro Engr, R. Shotwell, Res Dr Engr, OSHD

Quality of Work*	Progress of Work	Time Elapsed	Work Completed
See Below	Satisfactory	[illegible]	[illegible] %

Report to Include: (1) Scope of Inspection (2) Summary of Findings, Recommendations, and Action Taken.

*(*Not applicable for all Contracts.)*

EAST FREMONT INTERCHANGE
STADIUM FREEWAY
Grading, Paving, Structures, & Traffic Control Devices

*Project No.	I-405-8(22)	I-405-8(23)	I-405-8(24)
Project Name	Unit A	Unit B	Unit C
% Time Elapsed	77	77	88
% Work Completed	39	67	84

I. SCOPE OF INSPECTION:

This is a followup inspection covering work presently underway at the project site to correct an inadequate shop coat of inorganic zinc paint. In general the same procedures are being followed on the West Fremont project with a few minor revisions. A separate phase inspection report covering the corrective work underway on the West Fremont is being prepared. Since no decision has been made regarding necessary corrective work which will be required on the outside surfaces of the girders the following findings and recommendations pertain to only the inside girder surfaces.

II. FINDINGS:

Subsequent to the last inspection (See Inspection Report No. 17 dated 4-7 & 14-71) the procedures being followed to correct the deficient inorganic zinc paint coat have changed considerably. The present procedure which is considered unacceptable is:

1. Clean only rusted areas by power wire brushing and repaint with inorganic zinc paint.

2. The thickness of inorganic zinc will not be a consideration for acceptance as long as the paint is sound. Project personnel have been instructed not to make any further thickness checks.

3. All loose material resulting from rust staining and other deleterious material to be removed by washing prior to top coating with vinyl.

(more)

REPLACES PR 33A 3-65, WHICH WILL NOT BE USED.

4. Permit application of the vinyl top coat after a minimum 24 hour cure of the new zinc coat.

5. Disregard any bubbling of the vinyl top coat, which may occur. Also the thickness of the vinyl coat is not a consideration for acceptance.

III. RECOMMENDATIONS:

The specifications clearly require that both the inorganic zinc coat and the vinyl top coat both be tested for the required dry film thickness with a Micro-Metrics Tooke Paint Gage; that an additional coat of specific paint be applied if it fails to meet the dry film thickness specified when tested with the Tooke Gage; and that the inorganic zinc silicate painted surfaces damaged, faulty, or abraded be blast cleaned and spot painted. The following recommendations are made based on the above specification requirements:

1. In order to make certain that no corrosive rust is locked into the paint system and to insure a proper and adequate anchor pattern for the corrective coating of zinc it is recommended that all areas where rusting is evident be thoroughly cleaned by abrasive-blasting and repainted prior to application of the vinyl top coat.

2. Available manufacturer literature indicates that the film thickness necessary for zinc-filled coatings to be effective and provide the desired long term protection on smooth steel surfaces is in the range of 2 1/2 to 3 1/2 mils. It is recommended, therefore, that all surface areas where the zinc coating is 2 mils or less in thickness be thoroughly cleaned and repainted to the specified dry film thickness of 3 mils. The remaining areas where the thickness of zinc is less than the specified 3 mils should only be accepted with an appropriate reduction in price.

3. Available literature also indicates that topcoating self-curing inorganic zinc coatings too quickly cuts it off from humidity and other atmospheric elements necessary for proper curing which could result in premature failure since if the inorganic zinc does not completely cure it cannot achieve its maximum hardness, chemical resistance, or ability to give effective cathodic protection to the steel. Also blistering of the top coat can result from gases released during the curing period. It is recommended, therefore, that extreme care be taken to make certain that the zinc coating is completely cured prior to the application of the vinyl topcoat.

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MAY 1971
FOR FILING

A E Johnson

E-405-2(22)304
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

May 14, 1971
Salem, Oregon

NOTED
A. E. JOHNSON

SUBJECT:

To:
Memorandum To The Files

Reworking of Link Support Connections
East Fremont Interchange
Stadium Freeway
Contract 7310

On Friday, May 7, Mr. Dick Davies together with Canron's welding specialist from Vancouver and their job representative from Portland were in the office. Canron has reviewed further the problem of reworking the link support connections on East Fremont Interchange. They are now proposing a different method of reworking the link supports where bent plates were used from that proposed by Mr. Nitkin on April 28, 1971.

Mr. Davies said that Canron believes the corrective work should be done without removing the existing bent plates. He indicated that it was their belief that under working conditions in the field more damage than good may come out of trying to remove the bent plates as any over-gauging would seriously weaken the link support bar and render it susceptible to fatigue failure.

Canron now proposes that a steel bearing block be welded to the diaphragm web to transfer the load from the link plate to the diaphragm beam. The bearing block would be shimmed to full bearing with the load support bar, then fillet welded to the diaphragm web, this is a critical part of the repair and must be continuously checked. Welding sequence to eliminate weld shrinkage tending to separate bearing faces must not be permitted. On the forward link support connection the bearing blocks would be installed on both sides. At the rear connections they would be placed on one side of the diaphragm web. The blocks would be designed to transfer 100% of the design load.

Mr. Davies said that Howard, Needles, Tammen & Bergendoff had approved the use of the bearing block for the rear link support on the girders in Vancouver. This could not be verified on any approved shop drawing in this office.

Mr. Merchant gave approval to the general concept of the bearing blocks to transfer the link support load. Compression bearing blocks only are to be permitted. The use of blocks which would put the welds in tension are not to be permitted. Each individual bearing block is to be designed and detailed. Each unit will be checked and approved by Howard, Needles, Tammen & Bergendoff and the State. The Resident Engineer will field verify all dimensions.

Mr. Davies indicated that due to a strike in their Vancouver plant they may have trouble getting the specified grade of steel for the bearing blocks. Mr. Merchant advised him that the grade of steel specified should be used.

The reworking of the link support connections by the use of bearing blocks will not work on the West Fremont Interchange, since the bent plates there are bolted not welded. Canron is working on a proposal for the corrective work here but has nothing definite yet.

Mr. Davies left advance plans of Canron's Drawings L141, L142 and L181 which are the preliminary details for the reworking of the link support connections using the bearing block.

ORIGINAL SIGNED
WALTER J. HART

Walter J. Hart
Bridge Administration Engineer

WJH/ag

cc: A. E. Johnson
R. Schroeder
R. Shotwell
J. Howard
Pittsburgh Testing Lab.-Portland
Pittsburgh Testing Lab.-Vancouver
E. Rief

RECEIVED
MAY 17 1971
OFFICE OF
STATE HIGHWAY ENGINEER

HARLAN *Associates, Inc.*
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

11 May 1971

Our File: P-5711

SPECIAL DELIVERY

State of Oregon
Department of Transportation
138 State Highway Building
Salem, Oregon 97310

This report is presented as the confidential property of our client. For our mutual protection, authorization for publication in any manner is reserved pending our written consent.

Attention: Mr. A.E. Johnson, Assistant State Highway Engineer

Gentlemen:

1. We offer a summary of tests and observations made to date with regard to the vinyl portion of the overall coatings problem with respect to the East and West Fremont Interchange Sections of the Fremont Bridge in Portland, Oregon.

1.1 Vinyl samples were applied by airless spray using an 0.018 tip and approximately 2500 psi pressure. The coatings were applied to Rust-Ban 193 coated steel panels previously sand-blasted to achieve a one-half mil anchor profile. The zinc was applied to a dry film thickness of 3-4 mils and self-cured at ambient conditions (52% Relative Humidity and 68-72° Fahrenheit) for 48 hours before top coating. The inorganic zinc was not post-cured. One-half of each test panel was masked during primer applications to better evaluate the effectiveness of the primer systems on primed and unprimed inorganic zinc when top coated with vinyl material.

1.2 The vinyl finish coat was applied at a metal temperature of 90-100° Fahrenheit.

1.3 Disregarding a number of preliminary tests on various tie-coats and primers over Enjay's Rust-Ban 193 and 193 without any tie-coat, one tie-coat or Primer showed excellent promise of stopping the bubbling of Enjay's 5537.

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1.3.1 This is a proprietary product called "Super Koropon Fluid Resistant Spray Primer" as manufactured by De Soto, Inc., 4th and Cedar Streets, Berkeley, California, 94710, which was found to be very effective. No bubbling to trace pinholing (one or two pinholes per square foot) was achieved using Super Koropon 513-705-66 (513-706) and top coating with Enjay 5537 batch No. 1026 thinned one and one-half gallons of methyl ethyl ketone to five gallons of 5537 (as received from the West Interchange), Enjay 5537, Lot 2304G9 purchased locally, and Carboline Polyclad 936-1 Batch OHO116, no thinner added, received from the West Fremont Interchange. All unprimed (no Super Koropon) areas of panels displayed excessive bubbling and/or pinholing.

1.3.2 The Super Koropon Primer or tie-coat was applied as a wash coat without thinning to a dry film thickness of 0.7 to 1 mil, and cured 16 hours.

1.4 Enjay VM 5537, thinned with methyl ethyl ketone and applied to the following primer and/or tie coat systems developed bubbles and/or pinholes.

1.4.1 MIL-P-15328C (similar to Enjay's wash primer, blue).

1.4.2 MIL-P-15328C tie coat plus Rust-Ban VY 6520 vinyl primer.

1.4.3 Rust-Ban EX6666 Epoxy Primer.

1.4.4 — Rust-Ban VY 6520 vinyl primer (no wash primer tie coat).

2. Tests to date of our telephone conversation with Mr. Johnson of 5 May 1971 have been directed toward attempting to find a tie coat that would allow use of high build vinyl material as originally specified in the Oregon State Fremont Bridge Specifications. Super Koropon looks good in the laboratory: however, actual on-site tests obviously will be required to determine the effectiveness of the Super Koropon tie coat or primer under field conditions. We are running accelerated weathering tests to determine the long term durability and adhesion of the Koropon-Enjay 5537 system.

HARLAN Associates, Inc.
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO
CALIFORNIA 94103

This report is prepared for the confidential property of our client, for our mutual protection, authorization for publication in any manner is reserved pending our written consent.

5. Two possible draw-backs to the use of the Super Koropon as a tie coat or primer must be considered.

5.1 We are introducing a tie coat or primer manufactured by a second party with respect to Enjay.

5.2 The Super Koropon sets to dust-free in 15 minutes but may require 16 hours of cure time before top coating to achieve a bubble-free surface. The manufacturer's representative, Mr. Dan Miller, has indicated that top coats have been applied after 3 to 4 hours cure time but tests are in progress to prove or disprove the cure time versus bubbling effect. We do have a bubble problem with Super Koropon when top coated after one hour curing. Koropon is a two component epoxy and requires premixing before application.

6. With regard to other coating systems, to complete our vinyl investigation we intend to perform the following tests:

6.1 Apply Enjay VM 5537 to Super Koropon primed zinc coated panels, allowing three hours cure time for the Koropon.

6.2 Apply a conventional vinyl system consisting of one coat of wash primer followed by two or three coats of low solids vinyl applied at 1 to 1.5 mils per coat.

6.3 Post cure the inorganic zinc with Enjay 6851, apply one coat of wash primer tie coat and finish with one coat of Enjay VM 5537 (Mr. Don Blue of Enjay called today and indicated their laboratory tests were based on such a system and they achieved good results).

7. Application of High Build Vinyl Systems by Hot Spray should also be considered and we have made preliminary arrangements to evaluate application of Enjay 5537 by Hot Spray, if desired.

8. We have on hand five gallons of Enjay VM 5537, Batch 3E016, which we will use in our tests. Mr. Blue has stated that not all of the required 5537 has been manufactured. He also indicated that 5,000 gallons of 5537 have been made and 7,500 gallons are in process.

HARLAN Associates, Inc.
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE • SAN FRANCISCO
CALIFORNIA 94103

This report is presented as the confidential property of our client. For our mutual protection, authorization for publication in any manner is reserved pending our written consent.

9. With regard to Enjay VM 5537, in our opinion, a minimum shelf life of one year is the normal industry standard. The excessive bodying of Enjay VM 5537 on storage necessitating excessive thinning with methyl ethyl ketone (one and one-half gallons per five gallons of product) defeats the purpose of the specification with regard to volume solids and increases the bubbling effect on application.

10. We anticipate completing tests outlined in paragraphs 6.1, 6.2 and 6.3 by the afternoon of 13 May 1971 and will call Mr. Johnson unless we are advised otherwise.

Respectfully submitted,

H. R. Harlan Jr.

Harold R. Harlan Jr., Technical Director

HARLAN ASSOCIATES, INC.

HRHJr:mp
Orig. & 2cc

Samples pertaining to this report will be discarded 30 days from date of this report, unless otherwise advised.

HARLAN Associates, Inc.
PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE • SAN FRANCISCO
CALIFORNIA 94103

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HARLAN Associates, Inc.

PAINT RESEARCH LABORATORY
11 DUBOCE AVENUE - SAN FRANCISCO, CALIFORNIA 94103
621-7245
AREA CODE 415

TO: Oregon State Highway Department
138 State Highway Building
Salem, Oregon 97310

DATE: 11 May 1971

INVOICE NO:017517

This invoice covers work completed to date with regard to Jobsite inspections and preliminary evaluation tests with regard to bubbling and/or pinholing of High Build Vinyl Mastic applied to fresh (48 hours old) inorganic zinc:

Jobsite inspections (4 days @ $400.00/day):	$1600.00
Travel and living expenses:	342.00
Laboratory tests, summations and report of even date 60 hours @ $40.00/hour:	2400.00
Miscellaneous	50.00
	$4392.00

Approved 5-26-71
Asst. State Hwy. Engr.

Our File: P-5711
HRHJr:mp
Orig. & 2cc

Charge to:

626-1011-900	$1,634.00
626-1017-900	1,634.00
626-1013-900	1,124.00
Total	$4,392.00

Orig. and 2 cys. to Accounting
cys. to Ed Hardt
John Howard
Bob Shotwell
Bob Cunningham
A. E. Johnson

AFFILIATIONS: National Paint, Varnish and Lacquer Association . . . Federation of Societies for Paint Technology . . . American Chemical Society . . . American Society for Testing and Materials . . . American Institute of Chemists . . . Air Pollution Control Association . . . American Oil Chemist's Society . . . Forest Products Research Society . . . International Science Foundation . . . Technical Association of the Pulp and Paper Industry . . .
Registered Chemical Engineer, State of California

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MAY 7 - 1971
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I-405-8(23)304
7310

May 7, 1971

Oregon State Highway Commission

Gentlemen:

There will be on the agenda for the June 22 meeting a supplemental crossing agreement with the Union Pacific Railroad Company requested by Drake-Willamette, joint venturers, for an access road across the railroad tracks in the vicinity of North Knott Street on the East Fremont Interchange Section in Portland.

AR 192

This is the standard form of agreement for private crossings prepared by the Railroad and supplements an existing agreement dated September 30, 1970. The contractor is required to take the usual safety precautions, provide insurance, and reimburse the Railroad for any expense generated by this agreement.

We recommend your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
F. D. Morgan (Attn: T. W. Litchfield)
R. L. Schroeder

TWL:dl fn

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MAY 6 1971
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OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

May 5, 1971

Salem, Oregon

I 405-1(22)C4
1210

To: MEMO TO FILE

SUBJECT: East and West Interchanges
Paint Problems

An "on-site" meeting was held on May 4 at 1 p.m. The first portion of the meeting was at the West Fremont Interchange Project. Those present were:

For Oregon State Highway Division

A. E. Johnson
I. D. Merchant
Ed Hardt
Al Rear
Ed Rief
Bob Cunningham
John Howard
Bob Shotwell
Chas. Lobaugh
Glenn Wood

For Canron Company

B. T. Lawry
J. G. Smith (Can Test Co.)

For Andersen-Hannan

Ralph Hannan
John Creider, Jr. (Paint Subcontractor)

For Drake-Willamette (East Fremont Project)

Bill Bugge
Jack Grey
Ron Owens (Paint Subcontractor's Supt.)

For Enjay Co.

Don Blue
Leonard Grover

Mr. Lawry showed us some rusted areas in the beams above Pier 2 which he claimed could be satisfactorily repaired with wire brushing. He tried this with a copper wire hand brush. Examination by Ed Rief and me showed there was rust remaining.

Mr. Lawry then demonstrated the use of a power steel brush on several areas--both on flat surfaces and on weld areas. This method provided what I and others considered a satisfactory method of rust removal provided there is enough profile for adhesion, and Don Blue assured us there was and that this was an acceptable method of repair.

The group then went to the East Fremont Project to view the interior of beams being repaired there. The extent of rust was far greater at this location than at the West Fremont Project, and Mr. Lawry was extremely surprised at the extent of rust. The particular beam viewed was one on which R. B. 193 was first used.

It was the opinion of Mr. Ron Owens and Mr. Lawry that sandblasting was the only practical way to repair beams with the amount of rust shown on this beam.

After the above inspections and demonstrations, it was agreed the following procedures would be followed:

On the interior of beams showing extensive rust, sandblasting would be used if in the opinion of the painting subcontractor it would be a better procedure from a cost standpoint. It was agreed that a "sweep blast" would be used first and additional sandblasting in any area requiring further rust removal. On the interior of beams with a nominal amount of rust, removal by power brushing would be permitted using the following procedures:

A. The beams shall be washed down with detergents and pressure water in accordance with specifications.

B. The rusted areas will be marked by State inspectors and these areas power wire-brushed and repainted with zinc primer.

C. Prior to applying the vinyl, the cadmium-plated bolts shall be coated with epoxy paint in accordance with current agreements with the contractors.

D. Prior to applying the vinyl, any loose material on rust-stained areas will be removed by hand wire brush

and the vinyl applied. Loose material will be indicated if when rubbing a hand over an area, material is dislodged or indicated on the palm of one's hand.

E. The black bolts installed by Canron at the bottom of the diaphrams, if showing rust, shall be wire-brushed and painted with epoxy paint similar to the cadmium bolts.

In the above sequence of operations, items B--power brushing and recoating with zinc-- and D--removing loose material on rust-stained areas--will be considered "repair items" and costs of these items will be kept by the contractor and the State. In this cost-keeping, the two items shall be listed separately.

It was agreed that I would come to Portland Monday, May 10, and further inspection would be made to observe adhesion of the zinc.

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms

cc Andersen-Hannan
Drake-Willamette
B. T. Lawry - Canron Co.
D. R. Blue - Enjay Chemical Co.
Harold Harlan, Jr. - Harlan Associates

Tom Edwards
I. D. Merchant
R. L. Schroeder
John Howard
Robt. Shotwell
Ed Rief

STATE COPY

APPROVED EFFECTIVE DATE 5-26-71
Contingent upon modification of project agreement if additional funds are required
BY [signature]
TITLE Dist. Engineer
DATE 5-25-71
FEDERAL HIGHWAY ADMINISTRATION

RECEIVED
MAY 27 1971
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Project Name East Fremont Interchange Unit A — Date May 4, 19 71

Highway Stadium Freeway — Contract No. 7310

County Multnomah — Prefix 626-1017

Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304

Address 1201 North Loring Street, Portland, Oregon 97227 — Order No. 9

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done: Reinforce Structural Steel Ring Post Splices.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

Pier WE-9, WE-12 and 2-E

Estimate of quantities and cost:

Field Splice Revision	Labor -	$23,146.00
	Equipment -	4,104.00
	Materials	1,148.50
	Total	$28,398.50

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")
A design change in Post splices require additional field work to be performed at locations shown above. This work will be done in conjunction with work performed on P.A. # 10. Work consists of miscellaneous field drilling and reaming, temporary strutting and related work as shown on revised drawings # 27047, 25309 and revision letter of March 18,1971.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$13,928,737.75
Present estimate of project cost, including $ 28,398.50 for work under this order	$14,046,686.85
Expected [over-run] amount	$ 117,949.10
Expected [over-run] per cent	0.847 %

Space to right of this line for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Assistant Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer or Office Engineer.

5-27-71

SP*23877 734

FORM E-30 REM 10-68
MAY 5 - 1971
FC
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 3, 1971

To: MEMO TO FILE

SUBJECT: East and West Fremont Interchanges

On Friday, April 30, Tom Edwards and the writer met with R. E. Grant, Drake-Willamette; H. A. Andersen, Andersen-Hannan; P. G. Higgins and B. T. Lawry, Canron Company; D. R. Blue, Enjay Chemical Company; and J. G. Smith, Can Test, Ltd. This meeting was at the request of the contractors for the East and West Fremont Interchanges to discuss problems in connection with paint on both projects.

B. T. Lawry presented the following:

(1) He stated that Can Test people have tested paint thicknesses on steel in Portland and provide the information that paint film readings by Oregon State Highway personnel run from 1/2 to1-1/2 mils less than readings by Can Test people.

(2) He feels that unnecessary expense is being incurred in sand blasting of stained areas and that stained areas require only washing off. He stated that the secondary effects of sand blasting are very large.

(3) Canron has hired Can Test to do research work in connection with paint deficiencies and the State has hired Harlan Associates. Mr. Lawry feel the two companies should be working together and suggests that if they disagree and a third company is required, he would be willing to pay for one half the cost for services of a third consultant.

(4) He stated that Can Test has indicated the zinc primer is a sacrificial paint and should lose thickness but that neither Can Test nor Enjay know the exact extent of paint loss.

(5) Mr. Lawry presented a copy of a report by Can Test and of his letter of transmittal to the general contractors.

Mr. Edwards stated that his prime concern was to have corrective work done on the interior of the beams in order that

NOTED —
TOM EDWARDS

they could be painted and the contractor proceed with the job of forming and pouring deck. It is our desire to eliminate any rust on the beams, to eliminate loose material on stains, to repair the paint where sand blasted, and to apply the vinyl without additional paint readings. He agreed that readings by various inspectors should correlate and if necessay a school for the use of the Tooke Gauge should be held.

Mr. Edwards stated that we are telling the contractor to clean and repair the painted surfaces on the steel, and if the contractor put it on and it is not there now, we will pick up the costs of repair. If, on the other hand, evidence shows that there is no appreciable deterioration in great quantities of the zinc paint, we will look to the cost of the repairs to be borne by others. Mr. Lawry indicated that his interest was to do the cleanup work on a sensible level.

It was basically agreed by all that it is necessary to remove rust, and it was pointed out that we had agreed to observe the use of power brushes and needle guns for the removal of rust and arrangements were made to observe these procedures on Tuesday, May 4, on the West Fremont Interchange project.

Mr. Edwards advised Mr. Lawry that after he gets a full report from Can Test and we get our report from Harlan Associates, we can sit down and analyze both reports and if it is necessary we will obtain the services of a referee.

Mr. Edwards stated that the following would be done:

(1) Remove loose material only from stain.

(2) On-site meeting of all personnel shall be held to determine the condition referred to as "loose material". In other words, to determine what is "loose material".

(3) As soon as Harlan issues a report re paint characteristics, a meeting between Harlan, Canron, Can Test, and Enjay shall be held to resolve the problem. Additional consultants shall be brought in to resolve differences, if any.

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms
cc Tom Edwards/att
I. D. Merchant/att
R. L. Schroeder/att
John Howard/att
Robert Shotwell/att

#1- remove loose material
only from stair

#2. On site meeting of all personnel shall be held to determine the condition referred to as "loose material" In other words to determine what is "loose material"

#3 As soon as Harlan issues report re paint characteristics a meeting between Harlan, Caron, Contest and Enjay shall be held to resolve problem additional consultants shall be brought in to resolve differences if any.

Edwards.

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only from stair

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#3 As soon as Harlan issues report re paint characteristics a meeting between Harlan, Caron, Contest and Enjay shall be held to resolve problem Additional consultants shall be brought in to resolve differences if any.

Enjay Ltd.

RECEIVED
MAY - 1971

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 30, 1971

To: MEMO TO THE FILE

SUBJECT: Conference with Andersen-Hannan Co.
and Drake-Willamette Co.
Paint Problems, et cetera
West Fremont Interchange
East Fremont Interchange

On the morning of April 23, 1971, a meeting was held in Tom Edwards' office at the request of Mr. Andersen of Andersen-Hannan Company to discuss painting problems and other problems in connection with the subject projects.

Attending this meeting for the State were Mr. Tom Edwards and Mr. A. E. Johnson; and for the contractors, Mr. H. A. Andersen and Mr. Henry Hannan of Andersen-Hannan Company, and Mr. Frank Drake and Mr. R. E. Grant of Drake-Willamette Company.

The contractors, primarily through Mr. Andersen and Mr. Drake, reiterated that they felt the responsibility for the lack of zinc primer on the structural steel arriving in Portland was the State's and based this contention on the fact that the State specified the type of paint, the paint met the specifications, and the paint was furnished by a manufacturer approved by the State.

After considerable discussion with the contractors along these lines, Mr. Edwards stated the following points:

1. The Rustban 191 originally used was certified by the paint manufacturer, which manufacturer was selected by the steel fabricator.

2. Our records of paint tests at the Portland delivery site indicated that all shipments of steel painted with Rustban 191 through September 1970 were acceptable.

3. Canron Company requested on September 15, 1970, to change from Rustban 191 to Rustban 193 and cited reasons for the change as problems with 191 in curing times as well as adhesion to surface profile. It

was evident that Canron Company was encountering trouble due to weather and for details on this, reference is made to Item No. 6, "Discussion", of the notes concerning the recent failures of Rustban 191 painted Fremont components by Mr. B. T. Lowry, September 14, 1970.

4. The requested change to Rustban 193 was approved on October 8, 1970.

5. Between October 8, 1970, and March 1, 1971, only one shipment of structural steel was received which was satisfactory on arrival in Portland. This shipment was painted experimentally using Rustban 191 with various other materials.

6. It is noted that on March 1, 1971, Canron Company established a quality control procedure.

7. Shipments since March 1 appear to meet specifications.

8. Pittsburgh Testing Laboratories insist paint was applied to specifications, although there is no documentation of readings.

Mr. Edwards stated that based on the above and on his visual inspection of structural steel in Portland, he had no alternative but to believe that painting done during the winter months resulted in a poor job. He again reiterated that he expected the contractors to do the necessary repair work on the steel at Portland and suggested that in his opinion at this time, they should assume that the responsibility would be Canron's, taking account of this in their payments to Canron. He stated he was aware of the possibility of a lawsuit by Canron evolving from this, but had no alternative at the present time.

He advised those present that on the completion of work by Harlan Associates, Inc., a further decision would be made to be based on the report we received from that company.

The question of vinyl paint was brought up and Mr. Andersen presented a summary of the testing activities that have been performed on the West Fremont Interchange Project since April 19.

A telephone conversation was held with Mr. Harold Harlan, Jr., of Harlan Associates, Inc., in San Francisco, who advised us that he would not have a report on the inorganic zinc primer for three to six weeks from when he started a week or week and one-half ago. He stated he expected to have some information on vinyl paint in about four more days.

Mr. Edwards advised the group that we will not assume responsibility for vinyl at the present time. He will look at testing and available reports and hopefully arrive at a decision during the coming week regarding painting the exterior of beams.

Mr. Harlan indicated he had obtained weather reports from Vancouver, B.C. for the winter period and we advised we would obtain weather information for the Portland area for the same period.

Mr. Edwards advised Mr. Harlan that we need to know what to do in the application of vinyl. We would like to know if other name brands of vinyl paint are compatible with the inorganic zinc on the structural steel, namely carbolene and mobile materials. He stated we are not stuck on a one-coat job, but are interested in knowing the best and the most reasonable way to obtain the desired paint job.

The question of repairs to the insides of the beams was discussed and Mr. Edwards stated we would require rust to be removed, loose material on rust stains would be removed by wire brushing or brush blasting at the contractor's option, and blasted areas would be repainted with zinc. He stated we would not require repainting areas with zinc coverage.

Items also brought up by the contractor and disposition included:

1. Sidewalk replacement: Mr. Andersen said the State is asking for additional sidewalk replacement over and above that specified in the contract. Mr. Edwards ruled we would require the contract amount at bid price and would enter into price agreement negotiations for anything additional.

2. Area grading work: Mr. Andersen stated plans required site grading (under structures) but made no mention of importing material. We will negotiate a price agreement for the additional material.

3. Mr. Grant presented a deck pouring schedule problem, and it was agreed that we would have the Bridge Department examine deflections and determine if the desired sequence of pours can be made.

A. E. Johnson
Assistant State Highway Engineer

AEJ:sr

cc: R. L. Porter
Tom Edwards
Ivan Merchant
R. L. Schroeder

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MAY 10 1971
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I-405-8(22)3C 1
7310

CANRON LTD.
145 W. 1st Ave.
Vancouver 10, B.C.

30 April 1971

4900/5000/4

Drake-Willamette Joint Venture
1201 N. Loring
Portland, Oregon 97227
Attention: Mr. W. A. Bugge

Andersen-Hannan Joint Venture
3427 N.E. Halsey Street
Portland, Oregon 97213
Attention: Mr. Ralph Hannan

Dear Sirs:

Inorganic Zinc Primer
Fremont Interchanges

Attached please find a copy of a report provided to us by our consultants, Can Test Ltd. This report covers two major aspects of the problem with the primer, namely paint thickness measurement and remedial work presently underway.

In regard to the issues, it is the considered technical opinion of our consultant that Tooke gauge readings made by the OSHD are low to an extent ranging from a half to one and a half mils. This we consider is the result of the subjective nature of the instrument when used to measure the rough cut made in the inorganic zinc primer and which can be readily demonstrated by comparison with a smooth cut made through an organic zinc film. The value of current misreadings can readily be demonstrated by comparison with a properly calibrated Elcometer or Microtest gauge.

In regard to the latter, our consultant finds that far more remedial work than is necessary is being performed, largely due to local failure to properly differentiate between rust staining and corrosion.

Rust staining was inevitable and forecastable as a result of the OSHD decision to leave surfaces in contact with concrete unpainted. Both our consultant and

NOTED
TOM EDWARDS

our paint supplier state categorically that such staining is not detrimental to topcoat adhesion or primer performance provided that surface contaminants are pressure-wash removed, which process is a general requirement of the specification prior to vinyl application. However, the current remedial work is revolving around an instruction OSHD to Drake-Willamette of April 16 to "remove" such staining, leading to extensive sandblasting in situ. This is unnecessary and leads to extensive secondary damage to the coated surface in adjacent areas.

It is our opinion, supported by our consultant and supplier, that remedial work of stained areas requires no more than light wire brushing followed by a pressure wash. Work of a more extensive nature presently underway is wasteful and unwarranted. The major part of the surface discoloration is, in fact, staining, not any form of corrosion.

We consider it most important that these problems be resolved immediately between Harlan and Associates and our consultant - if necessary, we will agree to the selection of a third expert by these two companies and agree to abide by any decisions at which they may collectively arrive. We cannot over-emphasize our fears as to the extent of wasteful expense which is being and will be incurred as a result of a lack of a full understanding of some of the parameters involved.

CANRON LTD.
Western Bridge Division

Yours very truly,

B. T. Lawry, Professional Engineer
Project Manager

REPORT ON PAINT INVESTIGATION

File No. 1063 A

Report No. 18

Date 30 April 1971

Reported to: Canron Ltd.
Foot of Byrne
Burnaby, B.C.
Attention: Mr. T. Lawry
Project Manager

Further to our previous reports, meetings, plant and jobsite visit, concluded on 29 April 1971 at Portland, Oregon, we report as follows:

A. Condition of Painted Steel Structures at Jobsite

Observations:

Visual observations made of painted steel girders at the jobsite showed the following conditions to exist:

1) Many painted areas exhibited evidence of "rust staining". This staining is atributed to iron salts and/or precipitated iron originating from atmospheric corrosion of uncoated areas of the steel bridge. (Uncoated areas where those studded flat areas on the girders which are to be placed adjacent to the concrete, job specifications require these areas to be left uncoated). This staining was the result of steel corrosion products being washed from the uncoated areas by rain and/or condensation, and their subsequent deposition onto the painted areas.

2) There were isolated areas of "speckled" rusting on the painted surfaces. These speckles were the result of steel particles being imbedded into the surface of the paint film at the time of original painting by "shot blast".

3) A few areas of "speckled" rusting were evident, but in this case the rusting was attributed to inadequate paint coverage.

4) A few isolated areas also showed "rusting" due to a definite lack of paint coating.

5) Uncoated steel as required by the job specifications.

Remarks

1a) Staining or discoloration as described in Section A1 was assessed as being by far the most predominant staining of the painted surfaces. In our opinion, such staining was inevitable and forcastable under local weather conditions, when areas of the steel were left uncoated in accordance with job specifications. However, this type of staining, or discoloration, was not considered to be serious since pressure hosing with the use of detergents will render such surface areas satisfactory for final coating with vinyl paint. The paint manufacturer's specifications recommend this cleaning proceedure for such stained areas.

2a & 3a) Visual differentiation between staining caused by A2) and A3) as described above was difficult and it is suggested that the best manner to differentiate these stains is to measure film thicknesses.

Areas stained as described in A2) may be prepared for final coating with wire brushing and pressure hosing to remove all loose particles and surface contaminants. Areas stained as described in A3) should be pressure hosed with the aid of detergents and reprimed in accordance with the paint manufacturer's recommendations.

4a) Areas exhibiting rusting as described A4 should have their surfaces prepared for the application of a coating with R.B. 193 in accordance with the job specification and paint manufacturer's recommendation.

5a) No action required insofar as painting is concerned.

We have been informed by Canron Ltd that sandblasting is being carried out for touch up and cleaning of stains. In our opinion, this practice is questionable because of the possibility of damaging surrounding areas of acceptable paint. Further, it is noted that the paint manufacturer has recommended mechanical cleaning for such areas.

B. Differences in Film Thicknesses as Reported by Various Inspectors

We were informed by Canron, Ltd. that there were differences in reported film thickness measurements of applied inorganic zinc coatings as made by Canron and by agents of the Owners. In an attempt to ascertain true film thicknesses, we conducted the following series of measurements. (see our report No. 4 dated 3/9/71) Our laboratory carried out film thickness measurements using

a) Tooke Gauge
b) Elcometer
c) Micometer

and ascertained that if proper care were exercised both the Tooke Gauge and Elcometer measurements agreed with the absolute measurements made of coating thicknesses with the air of a micrometer which may be considered to be accurate.

Subsequently on March 23, 1971, our representatives attended at the jobsite and made film thickness measurements of several girders. During this visit, we noted and recorded approximately 150 film thickness measurements using both the

Elcometer and Tooke Gauge. At this tim we noted our thickness measurements were between 0.5 to 1.5 mils greater than the measurements numerically serialized and marked on girders stored at the site.

On April 29, 1971, we revisited the jobsite and checked five girders at various points using the Elcometer and Tooke Gauge. Readings taken at this time agreed with the values obtained by us during our previous visit.

In view of the above technical considerations, it is our firm opinion that the measurement of paint film thicknesses as noted by other inspectors are lower than the actual thicknesses. Further, we would suggest that the Owners are considering film thicknesses approximately 0.5 to 1.5 mils lower than actually exists.

In an attempt to a ccount for and explain the differences in film thickness measurements, we would make the following observations:

a) Tooke Gauge measurements of inorganic zinc coatings create the necessity for a subjective analysis of readings. The degree of which becomes increasingly significant as the film ages because aged films tent to harden and become more brittle with the passage of time. Tooke Gauge measurements require cutting of the film with a designated blade. Therefore, when brittle coatings are encountered chipping of the film during cutting occurs at both the interface of the coating with the steel and also at the surface of the film. Hence, when measurements of the cut film are taken, allowances must be made for chipping.

b) Errors ;in measurements as described above become quite evident when other instruments such as a microtest and elcometer are used. (both instruments utilize magnetism for measuring).

c) Meaningful thickness measurements can be made by the Tooke Gauge on aged inorganic zinc coatings only if the operator has a thorough understanding of the subjective nature of the instrument readings; is well versed and experienced in viewing through the magnifying eye piece and is fully cognizant of what he sees.

d) To achieve true thickness readings, we would suggest the use of an eltometer and/or a microtest gauge by technicians who thoroughly understand the necessity for and proceedures of proper calibration. (see attached appendix for further detail)

C Conclusions

In view of observations as detailed in A and B above, we feel that a great deal of confusion exists in the matter of film thickness and rust staining. We would therefore recommend that Canron Ltd. endeavor to clarify with the Owner all aspects concerning these problems as soon as possible.

Specifically, we would recommend that Canron Ltd. approach the Owners to establish appropriate action for the following:

a) Removal of rust stains or discoloration from surface of painted areas.- Normally, the manufacturer's recommendations should be followed.

b) Agreement between all parties concerned as to the method of film thickness measurements.

c) Agreement between all parties as to existing coating thickness and touch up requirements. We would suggest that this probably could be

most readily resolved if we, as your consultants, could meet with the consultants for the Owners and make measurements and assessments together. For any reason, should agreement not be possible, then a third party could be called in.

d) We would also point out that inorganic zinc coatings are sacrificial in nature, therefore it is reasonable to assume that there has been some loss of coating thickness due to natural corrosion protection of the steel.

CAN TEST LTD.

J. G. Smith

APPENDIX

Considerations in making film thickness readings with a Tooke Gauge when brittle coatings are encountered.

Examination of the attached sketch indicates four places where chipping of the film may occur during cutting. Naturally, the more brittle is the film, the greater will be the degree of chipping. Chipping of the film may lead to either high or low results as indicated by the dimensions designated on the sketch, ie, dimensions A, B, C, D, and E must be considered.

When sightings are made through the eyepiece of this instrument, chipping as described above results in the operator viewing jagged edges. This requires the operator to use judgment during readings. For this he should have a thorough understanding of the instrument and of all characteristics of the coating.

Dimension A

Readings result in true thickness values.

Dimension B

Readings results in too high values.

Dimension C

Readings may either be too low or too high, depending on chip size.

Dimension D

Readings will be too low.

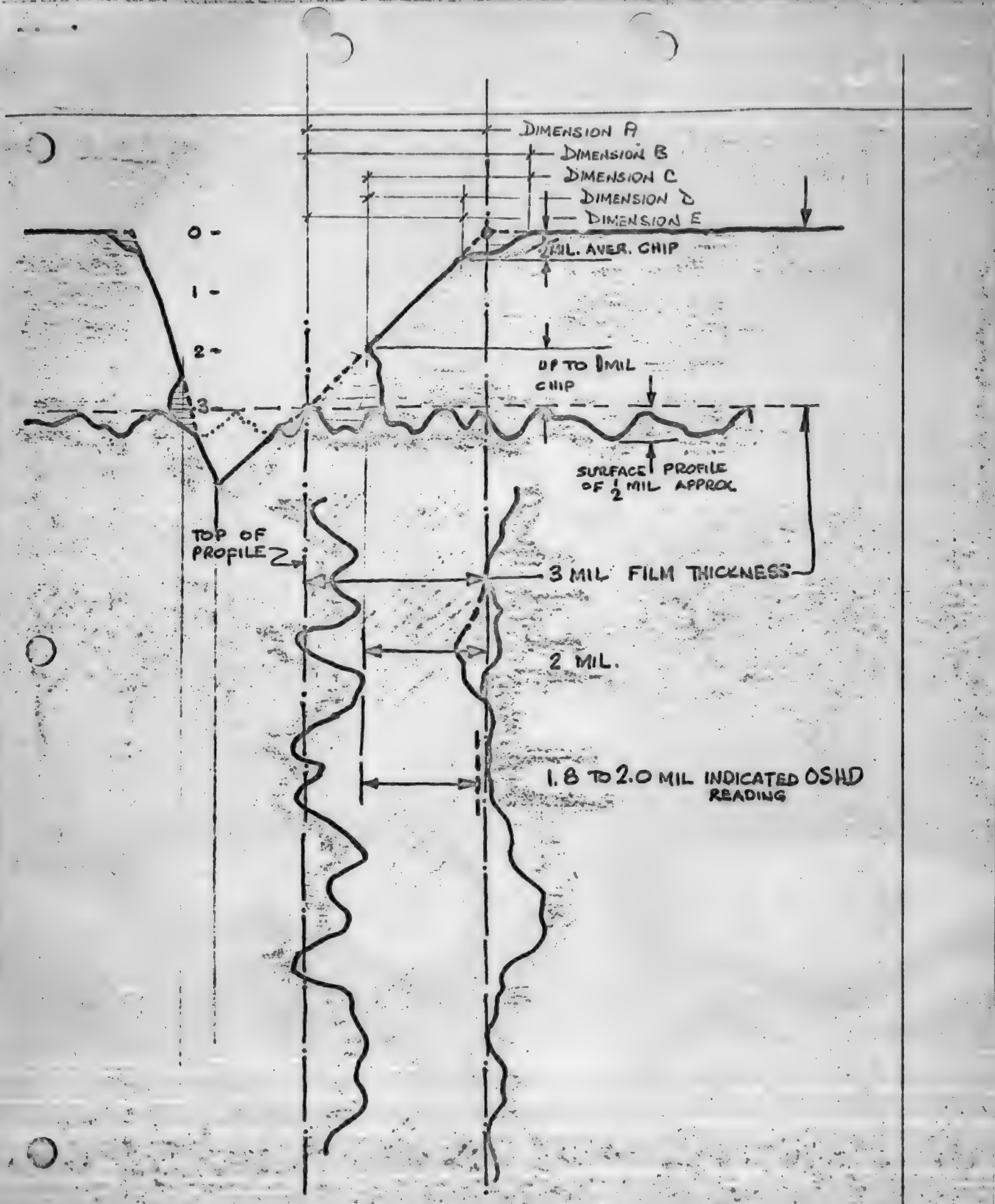
Dimension E

Readings will be too low.

Notes:

The attached sketch does not allow for variation of readings due to depth of profile of base metal.

To demonstrate the effect of brittle coatings on thichness readings obtained with the Tooke Gauge speciman panels may be prepared using organic zinc, Tooke cuts and readings may then be compared with those taken on girders at the jobsite.


DIMENSION A
DIMENSION B
DIMENSION C
DIMENSION D
DIMENSION E
0
1
2
3
2 MIL. AVER. CHIP
UP TO 1 MIL CHIP
SURFACE PROFILE OF ½ MIL APPROX.
TOP OF PROFILE
3 MIL FILM THICKNESS
2 MIL.
1.8 TO 2.0 MIL INDICATED OSHD READING

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I-405-8(22)224
1:10

Salem, Oregon,
April 28, 1971

MEMO TO THE FILE

On April 26, 1971, a meeting was held in Mr. John Howard's field office with representatives of Andersen-Hannan Company and the State Highway Division. Attending for Andersen-Hannan were Mr. H. A. Andersen, Mr. Henry Hannan, Mr. Ralph Hannan and Mr. Everett; and for the Highway Division were Mr. Ivan Merchant, Mr. Ed Hardt, Mr. John Howard, Mr. Robert Shotwell, Mr. Glen Wood and Mr. A. E. Johnson.

A discussion was held on procedures for repairing and painting the insides of beams, and it was reiterated that the following would apply:

We desire to sandblast the rusted areas only and remove any loose material from rust-stained areas. We will require that sandblasted areas be repainted with zinc; and if the contractor elects to sandblast the rust stain off, these areas also will be painted.

We indicated that is was apparent that the longer the inorganic zinc cured, the less chance we had for bubbling of vinyl; and therefore, it was desirable to proceed with repair and application of new inorganic zinc as rapidly as possible in order to obtain ample curing time.

The contractor was advised that if only 24 hours of curing time were obtained on the zinc, he would be expected to proceed with the application of vinyl.

We also advised the contractor that we desire to wash those areas where the zinc is sound and to proceed with the application of vinyl, disregarding the bubbling effect. However, it was also indicated that both the application of inorganic zinc and vinyl are subject to weather conditions, namely nonrain.

The question of painting the outsides of the structural beams was brought up. We were not able to offer a decision regarding this and must delay a decision pending study by our consultant and the contractor's paint companies.

NOTED
TOM EDWARDS

The elimination of the Johnson Street ramps was discussed, and it was indicated that the contractor's local forces had been advised verbally that the ramps would remain and their elimination would be removed from the contract. State forces were advised to immediately issue a letter to the contractor to substantiate this and to advise him of specific details. The contractor indicated there would be some complications regarding signing and guardrail installation if the ramps were to remain.

The contractor questioned sidewalk replacement, stating he had been requested by the Resident Engineer to replace sidewalks in addition to those specified by the contract. The Resident Engineer was instructed to prepare a price agreement for sidewalk replacement over and above the contract amount, and the contractor was requested to furnish a price and justification. The contractor suggested that elimination of all sidewalk replacement from the contract might be a possibility, and he was advised that we would consider this.

The contractor asked about importing fill material for grading of areas underneath structures. The contract provides for area grading and apparently was based on a balanced situation within a given block. Because of removal of concrete basement structures, et cetera, there is not enough material to grade the area as required. The contractor has been requested to import fill material at embankment bid prices. The Resident Engineer was instructed to negotiate with the contractor and prepare a price agreement for such imported fill material.

The contractor questioned the item for demolition of the present building being used as the Resident Engineer's office. It was indicated that it is desirable to leave this building for the State Resident Engineer's use on the upcoming contract and we will entertain a price agreement with the contractor for the elimination of the demolition of this building.

Following this meeting, an inspection of sandblasting operations on the Fremont Bridge was made, and it was noted that it is difficult for the operators of sandblasting equipment to distinguish the difference between rust and stain. The painting subcontractor offered the opinion that if he sandblasted just the rusted areas and steel brushed the stained areas by hand, he questioned any savings over removing rust stains by "brush blasting".

Mr. Ralph Hannan expressed the opinion given him by paint manufacturers that rust cannot be removed by steel brushes and that a copper brush, at least, would be required; and this would be difficult. He was offered the information that there is a piece of equipment known as a

needle gun which does not use sand or steel pellets, but is a series of air-driven needles built for the removal of rust. The contractor was encouraged to obtain one and try it. We were told that this would be done and in the event that such equipment is successful in removing rust, it would eliminate the problem of sand cleanup.

A. E. Johnson
Assistant State Highway Engineer

AEJ:sr

cc: R. L. Porter
Tom Edwards
Ivan Merchant
R. L. Schroeder
John Howard
Robert Shotwell

cc: Andersen-Hannan Company
Drake-Willamette Company ✓

FORM E-80-E (12-67)

MAY 4 1971

FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 28, 1971

I-405-8(12)310-1

To: 1310

SUBJECT: Reworking of Link Supports
East and West Fremont Intchgs.
Contracts 7214 and 7310

Mr. R. L. Schroeder
Metropolitan Engineer

METRO

Attention Mr. Edward L. Hardt
Metro Bridge Const. Engr.

On Tuesday, April 27, 1971, Mr. Nitkin of Canron, was in the office to discuss corrective procedures at the link supports on the East and West Fremont Interchanges. Alterations will be necessary to a number of the link supports where improperly bent plates were used in the connections.

Canron is proposing two methods for reworking the front link support connections depending on access. Where conditions will not permit working access to the joint side of the diaphragm, they are proposing the following procedures:

1. Remove existing bent plates from the back side of the diaphragm.

2. Reinforce the bent plate on the front side of the diaphragm with weld metal.

3. Install split collars as replacements for the bent plates on the back side of the diaphragm.

Where there is working access to both sides of the diaphragm, the bent plates will be removed one side at a time and replaced with collar plates on both the front and back faces. At the rear link support connection on East Fremont Canron proposes to gouge off the existing bent plates one at a time and replace them with new angles. On the West side the rear link support connections are bolted to the diaphragm. Here a different procedure will have to be developed since the bent plates cannot be removed one at a time. The reworking procedures here are under study by Canron.

Mr. Merchant gave tentative approval of the basic procedures proposed by Canron for reworking the link support connections. Final approval is contingent on the submittal and review of detail shop drawings both by Howard, Needles, Tammen & Bergendoff and this office.

Please keep the contractors on the two units advised of the status of the proposed link support corrective work. All repairs are to be made at no cost to the State.

Walter J. Hart
Bridge Administration Engineer

WJH:dh

cc M. J. Kopetz
A. E. Johnson
Robert Shotwell
John Howard

RECEIVED
APR 28 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 10 1971
FOR FILING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE
Portland, Oregon 97227

April 27, 1971

SUBJECT: East Fremont Interchange
Units A and B
Contract No. 7310, 7311

To:

Memo to Files

I met with Al Johnson, Ivan Merchant, Ed Hardt, Andy Anderson Ralph and Henry Hannan, and John Howard today.

We were informed by Mr. Johnson that the following procedure would be followed in regard to Zinc primer repair and Vinyl paint on the inside of trapezoidal girders:

That zinc which shows rust will be sand blasted and repainted with 3 mils of zinc primer.

Rust stains will be wire brushed.

Splice plates with cadmium plated bolts showing rust may be wire brushed in lieu of sandblasting.

Zinc primer that does not have specification coverage will not be repainted.

Bubbling of the Vinyl coat on inside of girders will be ignored.

5-10-71
See later letter
Ed

CC: Ed Hardt

Robert E. Shotwell
Resident Bridge Engineer

NOTED
A. E. JOHNSON

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MAY 4 1971
OFFICE OF
STATE HIGHWAY ENGINEER

METROPOLITAN ENGINEER
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APR 2[illegible] 71
[illegible] MTE

REFERRED TO
A E Johnson, Ivan Merchant
John Howard
Date: 4/30/71 By: HAROT
For: Your information

Due Date:

FORM D
MAY 1971 (REV. 10-69)

FOR FILE

I-405-8(2)-4
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 26, 1971

NOTED
A. E. JOHNSON

SUBJECT: Expansion Joint Revisions
East Fremont Interchange
Units A and B
Contracts 7310 and 7311

To:
Mr. R. L. Schroeder
Metropolitan Engineer

METRO

Attention Mr. Edward L. Hardt
Metro Bridge Const. Engr.

I am sending you 20 prints each of drawings B-415 through B-420, the detail drawings for the revisions to the multi-cell expansion joints on Units A and B of the East Fremont Interchange. Please take the necessary steps to have the contractor incorporate these changes in the shop drawings for the expansion joints.

The joint modification details have been discussed with Mr. Schell and Mr. Pillsbury of the Federal Highway Administration. They have given preliminary approval of federal-aid participation in a price agreement for the work. Their participation would be limited to an amount not exceeding 10 percent more than the State's estimate for the work. Copies of our estimate of the cost of the revisions is attached. If a negotiated price within the limit specified cannot be reached, the added work on the expansion units should be done by force account.

All the steel components in the revised units except the stainless steel should be painted as specified in the project specifications. The stainless steel should be kept clean and free of paint or other foreign material.

The enclosed prints are being sent to you for your use and for forwarding to the Resident Engineer and the contractor for their work. If additional prints are required, please advise this office.

ORIGINAL SIGNED
WALTER J. HART

Walter J. Hart
Bridge Administration Engineer

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APR 26 1971
OFFICE OF
STATE HIGHWAY ENGINEER

WJH:dh
Attachments
cc A. E. Johnson
M. J. Kopetz /w/ 3 sets of attach.
R. E. Shotwell /w/ 1 set of attach.
Ed Rief /w/ 1 set of attach.
H. A. Schell /w/ 6 sets of attach.
A. A. Rear /w/ 1 set of attach.

RECEIVED
MAY 4 - 1971
ENGINEERING

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 21, 1971

To: 7310

Mr. R. L. Schroeder
Metropolitan Engineer

METRO

Attention Mr. Edward L. Hardt
Metro Bridge Const. Engr.

SUBJECT: Expansion Joint Modifications
West Fremont Interchange
East Fremont Interchange, Unit C
Contracts 7214 and 7310

NOTED
A. E. JOHNSON

I am sending you 20 prints each of drawings B-392, B-399, and B-408 through B-412, the detail drawings for the modifications to the multi-cell expansion joints on the West Fremont Interchange and Unit C of the East Fremont Interchange. Please take the necessary steps to have these modifications made to the as-fabricated expansion joints.

The joint modification details have been discussed with Mr. Schell and Mr. Pillsbury of the Federal Highway Administration. They have given preliminary approval of federal-aid participation and a price agreement for the work. Their participation would be limited to an amount not exceed 10% more than the State's estimate for the work. A copy of our estimate of the cost of the modifications is attached. If a negotiated price within the limits specified cannot be reached, the work should be done by force account.

All the steel components in the modification units, except the stainless steel, should be painted the same as for the expansion joint as a whole. The stainless steel should be kept clean and free of paint or other foreign material.

The joint revision details for Units A and B of the East Fremont Interchange are being prepared at this time. We anticipate that by early next week we will be able to send you the details for the modification of these units which have not been fabricated.

The enclosed prints are being sent to you for your use and for forwarding to the Resident Engineer and the contractor for their work. If additional prints are required, please advise this office.

ORIGINAL SIGNED
WALTER J. HART
Walter J. Hart
Bridge Administration Engineer

WJH:dh
Encl.
cc—A. E. Johnson
M. J. Kopetz /w/ encl. (3)
John Howard /w/ encl. (1)
R. E. Shotwell /w/ encl. (1)
Ed Rief /w/ encl. (1)
H. A. Schell /w/ encl. (3)
A. A. Rear /w/ encl. (1)

RECEIVED
APR 21 1971
OFFICE OF
STATE HIGHWAY ENGINEER

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

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FOR FILING

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

I-405-8(22)304
7310

April 20, 1971

Mr. Tom Edwards
Deputy State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Reference: East Fremont Interchange

Dear Mr. Edwards:

The investigation of primed surfaces referred to in your letter of April 16, 1971 apparently confirms our previous contention, which is that the specified primer is incompatible with the atmospheric conditions encountered in the Pacific Northwest during the winter season.

Although not specifically stated, we read the implication that you would intend the corrective measures to be performed at the Contractor's expense. We reiterate that specified materials have been applied in the specified manner, and that the members receiving this coating were approved by the State for shipment. It would appear to us that a paint system with inherent problems has been specified. This becomes more apparent when you consider the difficulties presently being experienced in application of the vinyl finish coat, which, though discovered in October of 1970, still remains unsolved and is becoming increasingly critical.

A. E. JOHNSON

Your solution, if we have interpreted it correctly, is unsatisfactory, although we are temporarily proceeding with corrective action in order to ensure future productivity for established crews.

In addition to painting difficulties, we are experiencing design problems, and it is becoming difficult, if not impossible, to schedule our work in a manner which will ensure any degree of productivity for manpower or equipment.

(1) In February of 1971, we were advised of an interpretation affecting the minimum limits of steel erection before concrete placement for deck pours. This requirement, we believe, is not indicated by the Contract Documents, but compliance necessitated a major revision in our erection sequence.

copy of Pg 20-74 Spec. Provisions attached

. . . . . .

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97206

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

Mr. Tom Edwards,
Deputy State Highway Engineer
Oregon State Highway Department
Re: East Fremont Interchange

April 20, 1971
Page 2

In May of 1970, a design deficiency in the ring girders for Contract A was noted by our supplier, who advised your engineering firm. As of now, this deficiency is still unresolved. One ring girder has been erected and requires revisions. The remainder cannot be erected pending approval and additional fabrication.

In addition to the three foregoing causes for disruption of the work, we have received stop orders on fabrication and installation of the expansion assemblies pending revised design information.

We must advise you, therefore, that the magnitude and affect of the disruption of work is costing additional time and money for which we must claim an adjustment to our Contract, to be determined as soon as solutions to the problems permit the evaluation and extent of compensation due.

We request an early meeting with you to review these problems in detail, as further delay in achieving the solutions will be prohibitive in cost.

Very truly yours,

DRAKE-WILLAMETTE, JOINT VENTURERS

R. E. Grant

R. E. Grant
Vice President, Construction

REG:br

cc: Mr. Robert Shotwell

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APR 21 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 19 1971

I-4-5-8(12)3-4
7210

April 16, 1971

Drake-Willamette, Joint Venturers
1201 N. Loring
Portland, Oregon 97227

Anderson-Hannan
3427 N. E. Halsey
Portland, Oregon 97213

Gentlemen:

We have spent considerable time recently investigating the matter of the paint situation on both the East Fremont and West Fremont Interchange projects, and our records indicate the following:

(1) Inspection in Portland of the structural steel painted in Vancouver, British Columbia during the summer months of 1970 using RB 191 indicates that we have received an acceptable product.

(2) Tests indicate that steel which was painted in the latter part of October and during the winter months is not acceptable and will require repair work before acceptance.

(3) Tests also indicate that structural steel painted recently in Vancouver and delivered to Portland is acceptable.

In view of the above, it must be assumed that it is possible to obtain an acceptable job when proper procedures are followed.

You are therefore directed to take steps to repair those structural members which have paint deficiencies with the result that the specification amount of paint will be

obtained. Necessary repairs will include the removal of any rust and rust stains and the application of additional primer where needed to obtain specification thickness.

Very truly yours,

R. L. Porter
State Highway Engineer

By

Tom Edwards
Deputy State Highway Engineer

cc R. L. Porter
A. E. Johnson
I. D. Merchant
F. D. Morgan
John Jenkins
R. L. Schroeder
Ed. Hardt

AEJ:ms

Edwards hand
Anderson-Hannan
4-16-71

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APR 16 1971
FOR FILING

I-405-8(22)304
7310

Salem, Oregon
April 15, 1971

W. E. Skoog
Controller

BUILDING

East Fremont Interchange
~~West Fremont Interchange~~
Fremont Bridge

Paint Inspection by Pittsburgh
Testing Laboratory

Until further notice, please hold up any further payment to Pittsburgh Testing Laboratory in connection with the subject projects.

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms

cc R. L. Porter
Tom Edwards
I. D. Merchant
F. D. Morgan
John Jenkins
R. L. Schroeder

RECEIVED
APR 19 1971

FORM 3
I-405-8(22)FC4
7310

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
April 15, 1971

To: Memo to the File

SUBJECT: West Fremont Interchange
East Fremont Interchange
Contracts 7214, 7310, 7311

The purpose of this Memo is to document the events leading to the decision to clean the rusty steel girders on the subject projects by the sandblast method. This steel was received at the job sites with a shop coat of Enjay inorganic zinc paint applied which subsequently began to show rusty areas. In order to keep work on the projects progressing, it had been decided to proceed with repair of the rusty areas immediately. The cost of this work would be carefully recorded so that, in the event it was decided that it was the State's responsibility, the contractors could be so compensated.

On Monday, April 12, steel cleaning operations began on both projects. At this time, the writer was uncertain as to the better method of cleaning; by sandblast or by wire brushing. Sandblasting would yield a cleaner product, but it was felt it would be more expensive and there was concern that it would accidentally remove good paint along with the rust. With regard to cleanliness, there was a question as to degree of same obtainable by wire brushing and, more importantly, the degree of same necessary under the circumstances. Consequently, both methods were tried on an experimental basis; sandblast on the West project, and wire brushing on the East, to determine the relative merits of each.

Monday afternoon the writer inspected the wire brush cleaning on the East project. In general the work appeared satisfactory, although there was still a question in those areas of deep pitting as to whether the bottom of the rust "crater" was properly cleaned. It was decided to continue this operation since Mr. Harold Harlan, Jr., the State's paint consultant, was due on the project on Wednesday, and it was felt desirable to have him review this procedure. Since at this point in time it was thought that the wire brushing operation would be less costly

NOTED
TOM EDWARDS

than sandblasting and since the decision as to cleaning method could have a great monetary impact on the contractors, it was felt that it would be prudent to bend every effort to find the cheapest method to accomplish the cleaning work.

On Tuesday, the writer discussed with Mr. Edwards and Mr. Johnson the sandblast cleaning and painting operation on the West project. Early indications were that paint repairs by this method would not be as expensive as feared and that the writer's concern for sound paint damage by blasting were unfounded. The wire brush cleaning on the East project as an experiment, pending review and advice by Mr. Harlan, was also mentioned.

On Wednesday, April 14, both cleaning operations were inspected by Mr. Harlan; A. E. Johnson; Al Rear; Jim Chidsey; Wally Bryant; the Resident Engineers; and the writer. During this time, the unit cost of the cleaning work done the two previous days was being calculated. It was found that this cost was virtually identical for both methods at about three cents (3¢) per square foot. With this knowledge, the question of degree of cleanliness necessary or desirable became academic, since the better cleaning method did not require a cost premium. Consequently, the decision was made Wednesday afternoon to clean the rusty steel by the sandblast method.

The cleaning by wire brush method as an experiment was discussed by the Resident Engineer involved with the writer and the concept was approved by the latter. Any criticism of this procedure should be directed to the writer, and not the Resident Engineer.

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:slh

cc Tom Edwards
A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
Wallace Bryant, BPR

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STATE HIGHWAY ENGINEER

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FEB 14 1972
FORM E-20
FOR FILING

I 405-8(22)304
7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
April 13, 1971

To: Tom Edwards
Deputy Highway Engineer
State Highway Building
Salem

SUBJECT: W. Fremont Interchange
E. Fremont Interchange
Fremont Bridge
Paint Thickness Measurements

Inorganic zinc prime coat paint thickness readings have been taken in Portland by the Resident Engineer's crews on structural steel shipped from Vancouver, B. C., San Francisco, and Fought's plant in Tigard. The results are as follows:

West Fremont Interchange:

Rust Ban 191

Mils	No. of Readings	Percent
0 - 0.99	0	0
1 - 1.99	0	0
2 - 2.99	11	1
3+	919	99
Total	930	100

Rust Ban 193

Mils	No. of Readings	Percent
0 - 0.99	66	3
1 - 1.99	618	28
2 - 2.99	1101	50
3+	418	19
Total	2203	100

East Fremont Interchange (From Canron)

Rust Ban 191

Mils	No. of Readings	Percent
0 - 0.99	24	5
1 - 1.99	244	49
2 - 2.99	199	40
3+	28	6
Total	495	100

Rust Ban 193

Mils	No. of Readings	Percent
0 - 0.99	531	39
1 - 1.99	554	40
2 - 2.99	226	16
3+	66	5
Total	1377	100

East Fremont Interchange (From Fought)

Rust Ban 191

Mils	No. of Readings	Percent
0 - 0.99	0	0
1 - 1.99	0	0
2 - 2.99	1	2
3+	50	98
Total	51	100

Fremont Bridge Superstructure

Mobil Zinc 1

Mils	No. of Readings	Percent
0.- 0.99	0	0
1.- 1.99	0	0
2 - 2.99	4	11
3+	33	89
Total	37	100

Mils	No. Readings	%
0 - 0.99	0	0
1 - 1.99	0	0
2 - 2.99	5	5
3+	87	95
	92	100 %

If further information or amplification of the above data is desired, please advise.

4/15/16/71 Tests →

0 - 0.99	0	0
1 - 1.99	0	0
2 - 2.99	1	
3+	54	
	55	100 %

Robert L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
Robert Cunningham

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APR 14 19..
OFFICE OF
STATE HIGHWAY ENGINEER

Form FHWA-121 (12-

UNITED STATES GOVERNMENT

Memorandum

U. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

I-405-8(22)304

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

DATE: April 12, 1971

In reply refer to: 08-35.1

SUBJECT: Oregon Projects I-405-8(20)303, I-405-8(22)304, I-405-8(23)304
Fremont Bridge Approaches

Mr. Johnson's letter of April 9 enclosed an attached letter of understanding between Harlan Associates, Inc. for specialized services in connection with the paint inspection on the subject projects.

Recognizing that the problem is of vital importance requiring immediate specialized services not available in the Highway Division, these services are approved as participating charges.

Testing charges should be in accordance with an accepted schedule. Personal services are eligible for Federal participation to the extent that the costs are reasonable and can be justified.

Simpson:nig

4-14-71
cy to: Merchant
Morgan
Nitzel-Ed Reid
Skeen

NOTED
TOM EDWARDS

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

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APR 19 1971

OREGON STATE HIGHWAY DIVISION

I-405-1(22)204
1510

HIGHWAY BUILDING • SALEM, OREGON • 97310

April 9, 1971

Harlan Associates, Inc.
Eleven Duboce Avenue
San Francisco, California 94103

Attention Mr. Harold Harlan, Jr.

Gentlemen:

This will confirm our telephone conversation on Friday, April 2, concerning utilizing the services of your company to inspect the inorganic prime coat paint on structural steel at the Canron Plant in Vancouver, British Columbia destined for the Fremont Bridge in Portland.

This work is in connection with a problem of insufficient amount of prime coat on the structural beams after delivery to Portland and the application of high-build vinyl on the inorganic zinc, resulting in some bubbling and pitting.

We also agreed that we desire you to inspect the steel at Portland and determine for us by laboratory testing or other means the adequacies of our paint specifications and, if possible, the reason for the less-than-specification amount of paint and the presence of rust on the steel members. Your work would also include a recommendation to us as to the application of the vinyl top coat.

We agreed that your work would be conducted at the following rates:

1. Job-site inspection and consultation--$400 per day or part of day. (You have subsequently indicated an estimate of six days at this rate.)

2. Travel and expenses--estimated on April 9 to be approximately $500.

3. Laboratory testing at $40 per hour. On April 9, after inspecting the painting procedure at Vancouver, B. C.

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OFFICE OF
STATE PUBLIC ACCOUNTS

and steel beams at Portland, you indicated your procedures will require approximately $3,200 of laboratory testing time. It will consist of spectrographic analysis; infrared tests; accelerated aging tests; weatherometer tests; preparation and testing of test panels; and preparation of summation and reports.

We have also agreed that there will be an expense of approximately $100 for necessary phone calls and miscellaneous expenses.

Based on the above, it is estimated that the cost of your services will be approximately $6,200. If this is in accordance with your understanding, please return a signed copy of this letter to us.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms

Carroll B. Carlton Jr
By

14 April 1971
Date

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APR 13 1971
FOR FILING

I-405-8(22)304
7-10

April 9, 1971

Mr. R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Dear Sir:

Re: Fremont Bridge Approaches
FAP I-405-8(20)303 (West)
I-405-8(22)304 (East Unit A)
I-405-8(23)304 (East Unit B)

Reference is made to Mr. Edwards' April 5 letter seeking your approval for us to retain Harlan Associates, Inc. of San Francisco, California at an estimated cost of $3,000.

Due to delays being encountered by our contractors and the seriousness of these delays, it was believed necessary to proceed with the services of Harlan Associates, Inc., who were recommended to us by Mr. Lew Cody of the Washington Department of Highways and Mr. Herb Rooney of the Materials and Research Department of the California Division of Highways. On April 6 an inspection was made at the Vancouver, British Columbia plant of Canron Company and of the steel beams in Portland on April 7.

This inspection was made by Harold Harlan, Jr. in company with Ed Hardt, Ed Rief, and A. E. Johnson from the Highway Division and Herb Schell of your Division. The result of our inspection confirmed that the magnitude and seriousness of the problem was more than we believed, and it is now estimated that the consultant's costs will be approximately $5,200 as outlined in the enclosed copy of a letter to Harlan Associates, Inc. We believe the costs to be in order, including the laboratory testing charge, which would include several testing procedures at the same time.

We request your approval of charging the cost of this work to the cooperative engineering costs of the projects involved.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms
Enc.

bc R. L. Porter
Tom Edwards
I. D. Merchant
Ed Hardt
Ed Rief

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APR 12 1971
FOR FILING

T-405-8(22)304
7310

Salem, Oregon
April 9, 1971

R. L. Schroeder
Metropolitan Engineer

PORTLAND

Link Support Bent Plates
East and West Fremont Intchs.
Contracts 7214, 7310, 7311

On the subject of the link support bent plates for the above project, please advise the contractor of the following:

All bent plates at the forward support of the link assemblies which are bent to a radius on the concave face of less than the thickness of the plate are to be removed and replaced. Your attention is directed to Article 410-3.30 of the Standard Specifications, 1964 Edition. All other bent plates at either the forward or rear support of the link assembly which exhibit cracking as determined by visual observations or x-ray are to be removed and replaced.

A. E. Johnson
Assistant State Highway Engineer

cc: I. D. Merchant
F. D. Morgan
A. A. Rear
John Howard
Robert Shotwell

WJH:ag ms

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APR 13 1971

I-40C-4( )
7310

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
April 8, 1971

To: Memo To The Files

SUBJECT: East & West Fremont Interchanges
Contracts 7214, 7310 & 7311
Painting Inspection at Cannon's
Plant II at Vancouver, B. C.

The purpose of this memo is to document an inspection made at Cannon's Plant II fabricating yard in Vancouver, B. C. on April 6, 1971. This inspection was made by A. E. Johnson, Ed Rief and Ed Hardt of the OSHD; Herbert Schell of the FHWA; and Mr. Harold Harlan, Jr. of Harold Harlan Associates. Mr. Harlan is a painting consultant who has been engaged by the State to try to determine the cause of the paint failure problems experienced in Portland on both projects. The purpose of the inspection was to uncover facts that might aid in this investigation.

The first four named above arrived in Vancouver at 3 PM on April 5. A brief tour was made of the paint line at the plant in order to become acquainted with this facility. Our principle contacts with Cannon during the inspection were with Dick Davies who is in charge of quality control and Mr. John Wulf who is the paint line superintendent. Both these people and Mr. Terry Lawry who we also spoke to during the visit were most helpful and as far as we could tell, very open with the things that they told us. Also during this inspection, we spent considerable time talking to Don Scott and Ken Peterson of Pittsburg Testing Laboratory. Mr. Scott had come up especially to Vancouver to aid us in our investigation.

At 10:30 on the evening of the 5th, we picked up Mr. Harlan at the Vancouver airport. We spent the next several hours briefing him on the problems related to painting on the projects so that when he went to the plant the following day, he would have some knowledge of the reason for his employment.

The following day, Tuesday, was spent from 8:30 AM until 5 PM at Plant II looking into the details of the paint line and inspection of girders that were loaded on a barge, ready for shipment to Portland. The weather was rainy which actually aided in the investigation since it created conditions similar except for temperature to those that would have been experienced during the past winter when the work now under investigation was performed. Listed below are the findings of the group not necessarily in order of importance.

1. Review of the blasting, painting, resultant mil coverage indicated to us that this work is being done in a good workman-like manner. We could find no fault of any magnitude with the work that was being done at the time of the inspection. However, it should be

NOTED
TOM EDWARDS

kept in mind that the work as it is today now does not necessarily represent the manner in which the work was being done at the time that the girders now in Portland were being painted.

2. Numerous checks were made of PCL's paint thickness readings on the barge. There was a good correlation between those readings and there is no doubt that PCL can read the Tooke gauge and get the same kind of readings as the State's people.

3. Our discussions with Cameron people indicate that in our opinion Dighy Paint Company has not been supplying Cameron with a consistent product. Principally in the area of the viscosity of the paint. When the viscosity is too low, then the application methods must be altered to compensate which causes confusion among the workmen.

The viscosity of the paint first changed materially in January of 197- which then required the application of two coats of zinc in order to obtain the proper thickness. Prior to this time, Cameron was able to obtain the required thickness with a one coat operation. Cameron questioned this paint at this time but it was approved by the State's laboratory so it was used.

4. When the low viscosity paint which required the application of two coats as mentioned above was first applied, it was necessary to experiment to determine how to successfully apply the two coats. Cameron first tried to apply the second coat before the first had dried in order to get good bond between the coats. This resulted in a separation of the coats days later so Cameron went to a conventional two-coat application wherein the first coat was completely set before the second was applied. This required a delay between coats on the order of an hour.

5. Cameron has engaged a firm called CanTest to review their painting operation. We were told that so far they have received a "clean bill of health" from this testing firm with regard to the Plant III painting operation insofar as its compliance with our specifications. Gordon Smith of CanTest has a theory that the phosphoric acid which is being used for the post cure, is absorbed deep into the zinc coating, possibly clear to the base metal. Then, later when the paint is exposed to moisture, the unused acid is reactivated, comes to the surface and softens the surface of the zinc.

6. CanTest has made a number of test panels to test the paint [illegible] in Vancouver and in Portland. Some of these panels were postcured and some were not. There is a question as to when these panels were postcured since it may have been a weekend interval between application of paint and curing ovenful. Mr. Harlan checked the hardness of the paint on these panels and

commented that it is heavier when the paint on the girders that we looked at on Plant II.

7. It was raining during our visit and it was evident that zinc paint which was wet (exposed to the rain) was softer than that which was dry. Paint on a girder on the barge exposed to the rain could be easily eroded by rubbing with the edge of a coin. Paint on the same girder surface which was dry was only burnished by the action of the rubbed coin. Dry and wet paint scraped with a knife blade and scratched with a pencil lead also showed a marked difference of surface hardness. These individual tests were performed at locations separated on the order of a foot or less. The only difference being that one location was wet and the other dry. Other than that, it was the same paint being tested in both cases.

Rain falling on a freshly painted girder (12 hours previously) which had just been pulled out of the paint shelter was closely inspected. It was noted that an individual drop of rain caused minute bubbling indicative of a chemical action between the moisture and the post-cure acid which had been applied about an hour previously. This acid is applied heavier than a " mist " coat completely wetting the surface and running in some areas. This is Rust Bar No. 6851 and is applied at the rate of 400 square feet per gallon. The acid container carried instructions that it should be applied as a mist coat and Orman was told by Enjay to apply it at the rate of about 400 square feet per gallon.

At this point, it might be well to mention that we were told that the past winter in Vancouver was one of the most severe on record. Approximately six feet of snow fell, many mornings were below freezing and large amounts of rain fell. During this period of inclement weather the girders now showing distress in Portland were painted and stored in the open while waiting shipment to Portland.

8. Numerous paint thickness readings on the girders on the barge were taken with the Tooke gauge by Ed Ried. These readings closely checked existing readings recently taken by Jamron and PTL and all indicated three mils or more of paint. These readings will be checked again in Portland to determine if there has been any dft thickness loss.

9. The application of a thin coating of vinyl paint in lieu of the post-cure treatment was discussed with Tony Lavry. He was told that we were concerned about the possibility of a lack of cure of the zinc if it was prematurely covered and for this reason would not approve of this change without further testing.

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9. The application of a thin overlay of vinyl paint in lieu of the post-cure treatment was discussed with Terry Lavry. He was told that we were concerned about the possibility of a lack of cure of the zinc if it was prematurely covered and for this reason would not approve of this change without further testing.

10. John Wully, Cameron's Paint Line Superintendent, performed a demonstration on the paint line which showed the deleterious action of the post-cure acid on the zinc paint which had been already post-cured. He wet a cloth with the acid out of the spray gun, rubbed the zinc painted surface with same and was able to remove the paint with moderate rubbing. Tooke gauge readings indicated a paint film thickness loss from 3.6 to 3.0 mils.

Pending results of Mr. Harlan's testing of the components and samples of dried paint which he collected on this tour, it was the consensus of the group excluding Mr. Harlan that the first place to look for the cause of the paint problem is the post-cure material, phosphoric acid, which has been applied to all girders painted with Rust Ban 193. Due to it's reactivation in the rain, its harmfull effect on the paints surface when applied directly and rubbed, there is a strong question that if there has been a paint loss between the time of application in Vancouver and erection in Portland that this post-cure material may be the chief culprit. After briefly inspecting some of the steel erected in Portland, Mr. Harlan left for San Francisco on Wednesday, April 7, to start a testing program in his laboratory. He expects to return to Portland early next week to make an in-depth inspection of the painted steel here.

Robert L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: Don Edwards
A. E. Johnson
Ivan Merchant
John Jenkins
Robert Cunningham
John Howard
Robert Showwell
Ed Rief
E. A. Schell
Harold Harlan
Don Scott, FHL
Ken Peterson, FHL

RECEIVED
APR 9 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
FOR THE FILE

DONALD M. DRAKE COMPANY
CONTRACTORS
DEVELOPERS
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
TELEPHONE (503) 228-3991

I-405-8(22)314
7310

April 6, 1971

7310
7311
7312
7314

Mr. Tom Edwards
Deputy State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

INITIAL
A. E. JOHNSON

Dear Tom:

This will confirm my understanding of our conversation of this date.

In the interest of minimizing our extra costs to the state, we will proceed under the state's direction with the correction of the paint situation on the interior of the box girders so that the finish coat can be applied and forming and pouring operations can be resumed.

We will keep the cost information in accordance with the state's extra work order procedure and we trust the state inspectors will advise us of the procedure for rust and rust stain removal as well as the touch up prime coat required before the final vinyl is applied.

Yours very truly,

DONALD M. DRAKE COMPANY

Franklin G. Drake
President

FGD:mb

cc: R. E. Grant
W. Bugge

NOTED
TOM EDWARDS

Johnson
cy FHWA 4-8
cy El Hardt 4-9-71

RECEIVED
APR 7 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 6 1971
FOR FILING
I-405-8(1)-4
7310

April 5, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
Box 300
Salem, Oregon 97308

Dear Mr. Simpson:

As you are aware by telphonic discussions, a serious question has been raised concerning the adequacy of the paint specification on the Fremont Bridge approaches. For this reason, we seek your approval to retain Harlan Associates, Inc. of San Francisco, California to inspect the inorganic prime coat paint being applied at the Canron plant in Vancouver, B.C.; to inspect, also, the material on hand at Portland; and to give us an expert opinion as to the specification.

The expected cost of this consultation and opinion will be approximately $3,000. We seek your approval for this expenditure as an engineering charge against the project.

Very truly yours,

R. L. Porter
State Highway Engineer

By

Tom Edwards
Deputy State Highway Engineer

TE:ja

bc R. L. Porter
A. E. Johnson
Victor D. Wolfe
Ivan Merchant

RECEIVED
APR 5 - 1971
FOR FILING

April 2, 1971

Andersen-Hannan
3427 N. E. Halsey Street
Portland, Oregon 97213

Gentlemen:

After spending considerable time on the West Fremont interchange inspecting steel in place, I would recommend to you that you proceed immediately with correction of the paint situation on the interior of the box girders on that section which you are now forming and getting ready for concrete pour.

In view of the controversy concerning the adequacy of the paint specification, I would recommend that you keep a detailed and separate record of the cost of the corrective work.

I am advising our field office to check with you concerning these cost records in the same manner that would be followed for Extra Work processes.

Very truly yours,

R. L. Porter
State Highway Engineer

By

Tom Edwards
Deputy State Highway Engineer

TE:sr
cc: Franklin G. Drake
cc: R. L. Porter
F. B. Klaboe
A. E. Johnson
V. D. Wolfe
F. D. Morgan
Ivan D. Merchant
R. L. Schroeder

DOMESTIC SERVICE

Check the class of service desired; otherwise this message will be sent as a fast telegram

TELEGRAM	X
DAY LETTER	
NIGHT LETTER	

$
S
E

WESTERN UNION TELEGRAM

W. P. MARSHALL
CHAIRMAN OF THE BOARD

R. W. McFALL
PRESIDENT

INTERNATIONAL SERVICE

Check the class of service desired; otherwise the message will be sent at the full rate

FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS -CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

April 1, 1971

Mr. B. T. Lawry
Canron Limited
Fremont Project Office
4678 Byrne Road
Burnaby, B.C.
CANADA

Adverse to my approval yesterday do not order or apply one mil vinyl coat until further notice.

Tom Edwards
Deputy State Highway Engineer

WJH:dh

cc Accounting
A. E. Johnson

WJH

WU1206(R3-65)

RECEIVED

FORM E-30 SOM 10-65

FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
March 31, 1971

SUBJECT:

To: MEMO TO FILE

As a result of a meeting today with Andersen-Hannan and Drake-Willamette concerning the east and west approaches to the Fremont Bridge, the decision was taken to employ CH_2M to determine expeditiously the most pertinent way to proceed with the painting of the steel work on these approach structures.

Until decision concerning this matter is forthcoming, instructions to both these companies under date of March 12 over the signatures of Robert Shotwell and John Howard shall be held in abeyance.

Tom Edwards
Deputy State Highway Engineer

TE:fn

cc Andersen-Hannan
3427 N. E. Halsey Street
Portland, Oregon 97213

Donald M. Drake Co. &
Willamette Western Corp.
1740 N. W. Flanders Street
Portland, Oregon 97209

R. L. Porter
F. B. Klaboe
A. E. Johnson
Victor D. Wolfe
F. D. Morgan
I. D. Merchant
Robert L. Schroeder
Robert Shotwell
John Howard

RECEIVED
OCT 1 1972

5

4-2-71 Genl files.

FOR FILING

CANRON WESTERN BRIDGE DIVISION 145 WEST FIRST AVENUE, VANCOUVER 10, B.C.

PROJECT _____ MADE _____ DATE April 2. 1971

NO. 7310 CHECKED _____ DATE _____

Total paint purchases : 12,800 USG.
Paint inventory : 2,125 USG
CONSUMED 10,675 USG.

Completed footage : GIRDERS 83.6% 1,735,000 FT²
RINGS & X-G. 72.6% 252,000 FT²
FB & STR. 85.4% 268,000 FT²
2,255,000 FT²

COVERAGE : 211 □'/USG

1 USG = 0.134 FT³
= 1605 MIL. □' (WET)
= 1000 MIL. □' (CURED) (62.2% solids).

FOR 211 □'/USG, Theoretical coverage = 4.74 DRY MILS.

SUBTRACT : PROFILE EFFECT 0.50 MIL.
SPRAY EFFECTS & LOSSES 0.47 MIL.
0.97 MIL. ??

Net average cured coating 3.77 MILS.

RECEIVED
NOV 27 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

RECEIVED
UTILITY UNIT
APR 28 1971

OREGON STATE HIGHWAY DIVISION

I-405-2(22)304
7310

HIGHWAY BUILDING • SALEM, OREGON • 97310 Phone 378-6511

April 1, 1971

RAILROAD COMPANIES
FILE No. 672

Union Pacific Railroad Company
726 Pittock Block
Portland, Oregon 97205

ATTENTION: Mr. G. H. Baker

Re: Extension of Permit of Entry
East Fremont Interchange Section
Stadium Freeway
Multnomah County
R/W File No. 36087
Your File No. C 9001-32-15

Gentlemen:

Herewith you will find the copy of your letter dated March 15, 1971, which was signed by the State Highway Engineer, Mr. R. L. Porter, on March 22, 1971.

Acceptance of this letter will extend the existing Permit of Entry dated June 13, 1969, from June 12, 1971 to December 31, 1973.

Very truly yours,

F. D. Morgan
Construction Engineer

By R. W. Litchfield

T. W. Litchfield
Railroad and Utility Engineer

NOTED
F.B. KLABOE

TWL:dl
Enclosure

cc: R. E. Simpson (2) w/copy of Permit
F. B. Klaboe w/original Permit of Entry
I. D. Merchant w/copy of Permit
R. N. Bothman "
V. E. Skoog "
R. N. Chase "
E. F. Saling "
R. L. Schroeder "
R. E. Shotwell "
Jack Hesla "

RECEIVED
APR 1 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAR 23 1971
FOR FILING
OREGON STATE
HIGHWAY DIVISION

NOTED
A. E. JOHNSON

I-405-8(22)324

HIGHWAY BUILDING • SALEM, OREGON • 97310
7310

March 19, 1971

Pittsburgh Testing Laboratory
611 S. E. Harrison Street
Portland, Oregon 97214

Attention Mr. Donald R. Scott
Portland District Manager

Gentlemen:

East and WestFFremont Interchanges
Contracts 7310, 7311, and 7214
Painting Procedures

On February 24 I verbally requested a report from you covering the painting procedures in Vancouver, B.C. on the East and West Fremont Interchanges. This report was to be a detailed report of the painting operations as carried out by the fabricator and the inspection operations performed by your organization. Your report to me, dated March 8, 1971, goes into the details of overall shop inspection, which I did not request, and the portion of the report pertaining to painting is of an academic nature and does not fulfill the request of February 24.

As you know, a number of shipments of steel from Vancouver, B.C. have arrived in Portland with a shop-applied prime coat which does not meet the requirements of the contract specifications. The engineering contract between Pittsburgh Testing Laboratory and the State of Oregon requires your organization to inspect the paint procedures for compliance, in all respects, with the contract requirements. The inspection requirements in general are listed on page 10 of 10 of the inspection procedure requirements a part of the contract document.

Will you please give me a written report covering the following items, but not being limited to these, in order that we may have a clear picture of the shop procedures:

For a particular girder number (give number), give the following information:

1. Time on the paint line.

2. Curing time after completion of all painting and before exposure.

3. Time of taking mil thickness tests.

4. Number of mil tests - what determined the number.

5. Location of mil tests - what determined location.

6. Method and details of picking up holidays and thin applications after mil tests.

7. What percentage of the actual application time, as given in 1 above, was there inspection coverage by Pittsburgh Testing Laboratory and by fabricator.

8. Extent and details as listed above for fabricator's procedures. (Description of fabricator's quality control procedures.)

9. Any other items pertinent to the paint application, curing, or handling of completed sections or units.

It would be appreciated if this material could be received in this office not later than March 29.

Very truly yours,

R. L. Porter
State Highway Engineer
By ORIGINAL SIGNED
IVAN D. MERCHANT
Ivan D. Merchant
Bridge Engineer

IDM:dh

cc A. E. Johnson

RECEIVED
MAR 22 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
FEB 5 '71
OFFICE OF
STATE HIGHWAY ENGINEER

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: February 5, 1971

In reply refer to: 08-35-DA

SUBJECT: Oregon Projects I-405-8(17)303, I-405-8(20)303, I-405-8(22)304
Fremont Bridge, West Fremont Interchange, and East Fremont Interchange
Signing Revisions

Your December 18 letter indicated that for various reasons it is not feasible to make revisions in the signing on the subject projects as suggested in our December 7 memorandum. We believe there are revisions which can be made in accordance with the Interstate Sign Manual which would improve the signing. We will arrange to discuss these revisions with you.

2-12-71

REFERRED TO
Crandall
BY ASST. STATE HWY. ENGR

NOTED
TOM EDWARDS

Johnson

RECEIVED
FEB 9 '71
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Box 300
Salem OR 97308

I-405-8(3)224

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

DATE: January 29, 1971

In reply refer to: 08-35-EC

Klahre

SUBJECT: Design Approval under PPM 20-8

Reference is made to Mr. Young's January 13 letter in which he discusses the above subject as it related to a list of 26 Federal-aid projects. With regard to the first point raised in that letter we concur that a design approval for the construction of a section of highway would include all the elements necessary to complete the improvement even though some may be accomplished later under separate contracts. This remains true, however, only if the elements involved are those normally associated with that type of improvement and the proposed improvement remains essentially the same as that originally approved.

We have examined our records for each of the 26 project sections listed in the above-mentioned letter and concur that either design approval has been given or the project had developed beyond design approval stage prior to the effective date of the current PPM 20-8, and no further action is required except as noted below.

In the North Tigard Interchange - South Tigard Interchange Section the area involving the North Tigard Interchange was excluded from design approval.

In addition major revisions under consideration at the Haines Road Interchange may require additional design approval.

2-2-71
REFERRED TO
Asst. State Highway Engr.

NOTED
TOM EDWARDS

RECEIVED
FEB 2 1971
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JAN 15 1971

January 13, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
477 Cottage Street N.E.
Salem, Oregon

Dear Sir:

Design approval was granted by the Federal Highway Administration for the following projects on the dates as listed; we hereby request your concurrence that this approval included landscaping and other minor work (such as lighting, signing, screening and sound barriers), although this work may be done by separate contract immediately following completion of construction and as financing permits.

The proposed work is stage construction required to complete the sections of highway as scheduled for construction and this anticipated future work is necessary to improve the esthetics, maintain safety standards and protect the environment.

We further request your concurrence that the requirements of PPM 20-8 were fulfilled in obtaining design approval for the following sections and that the above-mentioned work was included; consequently, no further action is required.

We also request your concurrence that, inasmuch as this work is considered stage construction and no additional right of way is required, the subject projects are exempt from State and Regional Clearinghouse review under paragraph 2b of IM 50-1-70.

We trust the included information is sufficient for you to grant the requested concurrences for the proposed projects.

Richland Interchange-S. Baker Interchange Section, Old Oregon Trail Highway, Baker County — Design approval received on May 13, 1969.

West Fremont Interchange (Unit 2) Section, Stadium Freeway, Multnomah County — Design approval concurred in letter of November 18, 1970.

E. Unit, Pendleton-Emigrant Hill Section, Old Oregon Trail Highway, Umatilla County — Design approval received April 7, 1969.

Columbia County Line-Burlington Section, Columbia River Highway — Design approval received November 17, 1969.

N.E. 60th Ave.-Cascade Highway Section, N.E. Portland Highway, Multnomah County — Design approval received May 27, 1970.

Hayesville Interchange-Battle Creek Section, Pacific Highway, Marion County — Design approval received March 26, 1970.

Jumpoff Joe Creek-Grants Pass Section, Pacific Highway, Josephine County — Design approval received Feb. 13, 1970.

Battle Creek-Talbot Road Section, Pacific Highway, Marion County — Design approval received February 13, 1970.

S. Tigard Interchange-East Portland Freeway Interchange Sec., Pacific Highway, Washington and Clackamas Counties — Design approval received August 9, 1970.

Jantzen Beach Interchange-Columbia Slough Bridge Section, Pacific Highway, Multnomah County — Design approvals received July 1, 1970 and August 31, 1970.

Park St.-Tolman Creek Road (Ashland) Section, Green Springs Highway, Jackson County — Design approval received May 15, 1970.

North Tigard Interchange-South Tigard Interchange Section, Pacific Highway, Multnomah and Washington Counties — Design approval received August 19, 1970.

Woodburn Interchange-Hayesville Interchange Section, Pacific Highway, Marion County — Design approval received September 2, 1970.

Garden Valley Road-Fairgrounds Interchange Section, Pacific Highway, Douglas County — Design approval received July 2, 1970.

South Medford Interchange-South Ashland Interchange Section, Pacific Highway, Jackson County — Design approval received October 26, 1970.

La Grande-Ladd Canyon Section, Old Oregon Trail Highway, Union County — Design approval received May 13, 1969.

Ladd Canyon Section, Old Oregon Trail Highway, Union County, Design approval received May 13, 1969.

Ladd Canyon-North Powder Section, Old Oregon Trail Highway, Union County — Design approval received May 13, 1969.

Olds Ferry-North Fork Jacobsen Gulch Section, Old Oregon Trail Highway, Malheur County — Design approval received May 20, 1969.

North Fork Jacobsen Gulch-North Ontario Interchange Section, Old Oregon Trail Highway, Malheur County — Design approval received May 20, 1969.

Forest Grove Section, Tualatin Valley Highway, Washington County — Design approval received July 23, 1969.

Chemawa Road-Hayesville Section, Pacific Highway East, Marion County — Design approval received December 1, 1969.

Rickreall-Independence Jct. Section, Willamina-Salem Highway, Polk County — Design approval received January 8, 1970.

Winston-Shady Section, Coos Bay-Roseburg Highway, Douglas County — Design approval received May 1, 1970.

Bend E.C.L.-Ward Road Section, Central Oregon Highway, Deschutes County — Design approval received August 13, 1970.

East Fremont Interchange Section (Units "A", "B", "C"), Stadium Freeway Highway, Multnomah County — Design approval concurred in and received April 16, 1969.

Attached for your convenience in identifying the project sections is a copy of our current Tentative Schedule of Contract Lettings.

Very truly yours,

R. L. Porter
State Highway Engineer

By

L. H. Young
Program and Planning Engineer

Attachments

DAR:ia

cc: F. B. Klaboe
Frank Hall
R. W. Ellison
R. N. Chase
B. L. Gifford

RECEIVED
DEC 22 1970

I-405-8(22)314
7310

Salem, Oregon
December 21, 1970

R. L. Schroeder
Metropolitan Engineer

PORTLAND

Attention: Ed Hardt

Attached is a copy of a letter from the Union Pacific Railroad Company concerning the placing of Scotch Lite safety striping on the three piers immediately south of their Albina Freight House.

Tom Edwards has suggested that we apply a coat of 3M "Codit" paint to the lower portion of these piers to a height that would be effective for car and truck headlights. If this is not feasible, please proceed with the application of Scotch Lite safety striping.

A. E. Johnson
Assistent State Highway Engineer

AEJ:ms
Att.
cc Tom Edwards
I. D. Morehead
T. W. Litchfield
Frank Hall
Robert Shotwell

copy to Ed Hardt
1-8-71

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

4555 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

RECEIVED
OCT 1970
CONSTRUCTION
DIVISION

December 15, 1970

File: D 9010-32-17

Mr. F. D. Morgan
Construction Engineer
Highway Building
Salem, Oregon 97310

Attention: Mr. T. W. Litchfield
Railroad and Utility Engineer

Reference: East Fremont Interchange, Unit A

Dear Sir:

It has been suggested at a recent Safety Meeting held on November 27, 1970 that scotch lite safety striping be applied to the three piers immediately south of our Albina Freight House. Evidently these piers are not too visible at night and constitute a hazard to vehicular traffic in the area.

Will you please advise if the State would be willing to install the above mentioned striping or equivalent.

Very truly yours,

Original signed for
R. B. Hardin
Superintendent

cc: Mr. Robert Shotwell
Resident Engineer
Oregon State Highway
1101 N. Russell Street
Portland, Oregon 97227

AE Johnson
ID Merchant
Frank Hall

copy to Eckhardt 1-8-71

RECEIVED
DEC 17 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 18 1970
FOR FILING

I-405-1(22)324
1310

December 18, 1970

Mr. R. H. Simpson
Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Dear Mr. Simpson:

Re: 08-35-DA

Your letter of December 7 made several comments comparing the requirements of the new "Interstate Sign Manual" with signing currently under contract at the East and West Fremont Interchanges, as well as the Fremont structure proper.

The entire signing plan for this section is extremely complex and was worked out over a long period of time by Mr. Tom Edwards, Mr. L. H. George and Mr. Gordon Brooks, previously of your office. Not only the sign messages and sign sequences are critical, but the physical dimensions of the signs themselves are critical with respect to vertical clearances. This is particularly true on the bottom deck of the Marquam Bridge.

In addition to receiving approval from your office during the preliminary design stages for this signing, various county and city governmental units have approved the signs as they are now contracted. It is our opinion that it is not feasible to make revisions in the signing on these three contracts.

Your letter also suggests that the practice of interchange numbering be instituted. The mile-posting system in Oregon started in the early 1930's, and the entire record-keeping system of the Highway Division is based upon our current mile-posting plan.

As you know, to number the interchanges according to current standards would require a reversal of the mile posts on our Interstate System, which would in turn require a complete change in our record-keeping system. The problems generated by this change will require study to determine a suitable method of correlation of records.

When the Highway Division has evolved a suitable solution for the problems that will arise, we will give further consideration to interchange numbering.

Very truly yours,

R. L. Porter
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: R. L. Porter
Tom Edwards
V. D. Wolfe
F. B. Crandall

LEG:mk sr

Form FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

DATE: December 7, 1970

In reply refer to: 08-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(17)303, I-405-8(20)303 & I-405-8(22)304
Fremont Bridge, West Fremont Interchange & East Fremont Interchange
Signing Revisions

FHWA Notice TO-1 dated November 13, 1970, subject Official Standards for Street and Highway Traffic Control Devices, requires that special attention be given to all signs on projects under construction where conformance to the requirements of the new Interstate Sign Manual is feasible. In line with this requirement the planned signing for the subject projects has been reviewed in considerable detail. As a result several changes in the signing are considered necessary in order to fully comply with the requirements of the Interstate Sign Manual. The following list includes both necessary and suggested revisions in the signing for these projects:

1. All signs should adhere to the prescribed horizontal and vertical sequences for route markers, cardinal directions, destination names, arrows and other components of the sign display i. e. all route shields and cardinal directions should appear above the destinations.

2. Signs 16 and 35 on the East Fremont project and Sign 1 on the Fremont Bridge project incorrectly combine an I-5 South route shield with "The Dalles" as a destination.

3. The destinations on Signs 8, 13, and 17 (West Fremont) should be reversed in order to effect proper lane assignments.

4. The Interstate sign manual indicates that it is desirable to limit destinations to one per sign, or to a total of three in a display where two or more signs are placed on the same support. It is recommended therefore that Signs 11, 12, 16, and 18 on the West Fremont project and Signs 13, 15, and 10 on the East Fremont project include only one destination. The proper route shields should be added to Sign 18 on the West Fremont and Sign 10 on the East Fremont.

5. The use of Vancouver as a destination is questioned since it does not appear as a destination anywhere else in the Metropolitan area.

(more)

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

In addition to the above it is suggested that a detailed review be made of all signing on these projects to make certain that all elements such as interchange numbering, use of down arrows, and "Next Right" legends, and lettering, marker, and numeral sizes are in full conformance with the requirements of the 1970 Interstate Sign Manual.

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DEC 9 1970
OFFICE OF
STATE HIGHWAY ENGINEER

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FORM E-20 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
November 20, 1970

I-HC-2(22)
7310

To: Memo to the File

SUBJECT: Fremont Superstructure,
Contract 7276
East Fremont Interchange,
Contracts 7310 and 7311
West Fremont Interchange,
Contract 7214
Vinyl Paint

On November 20 a field inspection of structural steel painted with inorganic zinc primer and vinyl topcoat was made at Swan Island and the West Fremont Interchange by Messrs. Johnson, Merchant, Schell, Hardt, Cunningham, Howard and various representatives of the paint suppliers—Enjay and Mobil—and the painting subs—Klaas and Kreiter. The purpose of this inspection was to observe the "bubbling" and "cratering" which has plagued the vinyl paint application to date.

On Swan Island where Klaas is using Mobil paint on the superstructure steel, the group observed a panel of steel which had had 16 wet mils - 5 dry mils of vinyl applied which had numerous bubbles. There were also panels with lessening amounts of vinyl applied as a "primer" coat over which an additional coat of vinyl was applied during the group's presence. The most promising combination was one which had 6 wet mils - 1+ dry mils which was reasonably free of bubbles, over which was applied 10 wet mils - 4 dry mils which had a few bubbles. This panel was still not acceptable from the point of view of bubbling but indicates that with the proper combination of coats considerable improvement in this problem can be made.

At the West Fremont Interchange where Kreiter is using Enjay paint Don Bozeman, representing Enjay, showed the group a number of test panels on which various combinations of vinyl paint formulations and coats were tried. The attached sheets are Bozeman's notes of these tests. The most promising was "Second Bay, Panel 3L" where the standard formulation thinned with one half pint per gallon of MEK was applied in one coat.

It was agreed by all that this panel represents an acceptable vinyl coating and would be used as an inspection standard for future work. It was also agreed that both contractors using Enjay paint would be

allowed to proceed with this modified formula on an experimental basis to determine if an acceptable production paint job could be obtained.

R. L. Schroeder
Metropolitan Engineer

by

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:lh
Enc
cc: A.E. Johnson, w/Attach.
Ivan Merchant "
John Jenkins "
R.O. Cunningham "
John Howard "
Bob Shotwell "

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NOV 24 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Oct. 31, 1970 Paint Test
West Fremont Interchange

Conditions: Air Temp. = 54° F
Rel. Humid. = 53%
Surface Temp., left side web = 64° F
right side web = 73° F

1st Bay — Not available

2nd Bay, Panels 1R, 2R, 3R, 2L
product: New formulation, no thinning
2 coats, 5 minute interval
Result: Excellent (An occasional bubble located where vinyl is 8+ dry"

2nd Bay, Panel 3L
product: OSHD Formulation with ½ pt./gallon MEK
1 coat
Result: Acceptable (few tiny bubbles plus some 3/16" ± ϕ.)

3rd Bay, Panels 1L, Top of 3L, and Diaphram
product: New formulation with 1 pt./gallon Isophorone
2 coats, 2 minute interval
Result: Acceptable (some foam, or small bubbles)

3rd Bay — Panel 3R, Bottom of 3L
product: New formulation with 1 pt./gallon Isophorone
1 coat
Result: Acceptable (we probable could have better results with only ½ pt./gal. thinner)

4th Bay — Panel 1L
product: New formulation, no thinning
2 coat, 1½ min. interval
Result: Acceptable (small bubbles)

4th Bay, Panels 1R, 2R
product: New formulation, no thinning
1 coat
Result: ???

4th Bay, Panel 2L
product: New formulation, no thinning
1 coat
Result: Acceptable (some small bubbles)

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1165-1(2)
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 20, 1970

To:

Memo to the Files

SUBJECT: Painting
East and West Fremont Interchanges
Stadium Freeway
Multnomah County
Contracts 7214, 7310, 7311

On Wednesday, November 18, 1970, at 2:10 p.m. a meeting was convened in the conference room of the Highway Building in Salem, Oregon to discuss a problem with the vinyl paint system on the East and West Fremont Interchanges. A listing of those in attendance and their affiliation is given on a following page.

Mr. Bugge opened the discussion with a statement of the problem as it relates to the East Fremont Interchange. It was indicated that a similar problem exists on the West Fremont. The contractor states that they believe the vinyl top coat of paint applied and the method of application are within the context of the specifications but that the work is still not acceptable under these specifications or to the State's inspectors. The contractor wishes a statement from the State on what further action should be taken.

Mr. Everett commented that the problem with the paint system is seriously hindering work on West Fremont. Forming for the deck on the steel units cannot proceed in an orderly manner until the problem with the paint system is resolved.

Mr. Bugge stated that it was his observation that such problem as may exist was one of bubbling of the vinyl top coat. He stated again that he feels his painting subcontractor has followed the specifications and still cannot get a job acceptable to the State. Mr. Johnson stated that in Enjay's letter of November 6, 1970, it was indicated that there is a way to solve the problem being experienced.

Mr. Merchant stated that the top coat should not pinhole. Mr. Bozman stated that all vinyls have pinholes to a degree and that it is not possible to completely eliminate their presence. He further stated that there are requirements of the project specifications which are not compatible with vinyl paint. He defined the following industry terms relating to paint systems:

Crater - paint bubbles that break.

Bubbling - gas entrapment.

Pinholes - caused by gas passing through paint film that breaks the film and the film does not seal in.

Mr. Blue stated that pinholes are very small and not normally visible to the eye without magnification.

Mr. Hardt stated that the problem area is with bubbling. Mr. Johnson called to the attention of Mr. Bozman and Mr. Blue that in Enjay's report of August 12, 1969, cn this paint system, Enjay had indicated that there was a problem with bubbling. Mr. Bozman stated that he believed the paint system was within the acceptance level of the industry. Mr. Blue commented that Enjay believes that their product - the vinyl top coat - will meet the requirements of the State. He indicated that no vinyl will be completely free of pinholes.

Mr. Chidsey questioned Mr. Bozman and Mr. Blue as to why no one in the industry questioned that requirement of the specifications before this time. The specifications were discussed with a number of representatives of the paint industry including considerable discussion with Enjay during the formulation stage of the project.

Mr. Bugge stated again that the problem is with bubbling. Mr. Shotwell concurred with this.

Mr. Merchant indicated that Enjay had agreed that the paint system could be applied under the specification. Mr. Bozman stated that Enjay believes the specifications contains several errors. He said that Enjay recognizes the intent of the specification but that they interpreted the wording to be the general acceptance level of the industry. He stated that there is no way a pinhole-free top coat can be applied.

Mr. Merchant quoted out of Enjay's report of August 12, 1969. In the supplemental section of that report a statement is made that a tack coat was used to break up a problem with bubbling.

Mr. Merchant stated that Enjay made a claim that a bubble-free paint system can be done and that the State wants it to be done. Mr. Merchant referred to the project specifications which indicated that a tie coat was permitted if necessary to obtain the completed paint system.

Mr. Bugge and Mr. Everett stated that the specs were clear under the paint heading "Description of Work"; that the vinyl top coat was to be a one-coat system. Mr. Bozman stated that the paint system being used met the requirements of the specification except for the presence of pinholes. Mr. Merchant disputed this point. Mr. Blue indicated that pinholes will seal themselves from within the system. Mr. Hardt questioned that if the inorganic zinc primer will seal, what good is the vinyl top coat? Mr. Bozman answered that the vinyl was needed to improve appearance and to extend the paint life.

Mr. Bugge again stated that the problem is with bubbles and not pinholes. Mr. Bozman said that if the bubble is not broken the paint will seal. He claimed that the solvent will escape if the bubble is not broken.

Mr. Klaas indicated that the reason that a good job was obtained in the box beams at the rings was the lack of moving air allowed the solvent in the air to hold the surface open and permit the escape of solvent from the paint surface.

Mr. Johnson once again referred to Enjay's letter of November 6, 1970, and the statement therein that a method was available to solve the problem at hand. He emphasized that the State wishes to hear what Enjay's proposed solution is. Mr. Bozman said that a possible solution to the problem would lie in the interpretation of the validity of the paint specification. He stated that the difference in what is considered acceptable by the paint industry and what is acceptable to the State needs to be resolved.

Mr. Klaas indicated that the SSPC specifications say that pinholes should be expected and accepted in a vinyl system of this thickness. He said that they have tried one mil to ten mil coats wet and that they all bubbled.

Mr. Johnson indicated that this discussion could go on indefinitely that the State wanted Enjay's proposed solution to the problem. Mr. Bozman said that a completely bubble and pinhole free surface cannot be obtained. Enjay believes that the coating is suitable for the purpose intended. He indicated that the temperature of the steel had a great effect on paint film performance.

Mr. Kreiter stated that a mist coat-top coat system is a two-coat system and not a one-coat system as per the specifications.

Mr. Bozman said that there is a difference in the acceptance level between the State and industry standards.

Mr. Shotwell stated that there were numerous bubbles in a size up to the size of a little finger. He questioned the final appearance of such a surface.

Mr. Bozman stated that the formulation of the vinyl to improve the performance of the paint system cannot be done under the present specification. Bubbles will occur where the build up exceeds that specified. Mr. Blue suggested that an extended drying time be considered.

Mr. Mandrell suggested that Enjay furnish a sample paint panel as to what they consider acceptable. Mr. Bozman indicated that the best example of what he considered acceptable was in the West Fremont structure. The section referred to incorporated a paint with an extended drying time.

Mr. Klaas commented that one basic point they would like to see come out of this discussion is a meeting of the minds on what is acceptable. Can the acceptance level between interior and exterior surfaces be different? He also pointed out that all of his previous experience with this type of paint system was with multiple coats. The problems are compounded with paint thickness. With a multiple-coat system the problems are less. An acceptable level of performance needs to be recognized and agreed to.

Mr. Bugge commented on permitting different levels of acceptance between interior and exterior surfaces. This could have a telling effect on job progress. The need to proceed is a paramount item.

Mr. Merchant commented that we are now in the worst season of the year from a weather standpoint for painting in the Portland area. Mr. Bugge commented that the actual painting operation is quick when weather permits.

Mr. Merchant stated that the State was not happy with the paint industry to date in fulfilling their claims of performance with this paint system. Mr. Bozman admitted that all factors were not fully understood on the paint performance, that there are problems in Portland which have not been experienced previously.

Mr. Johnson asked if a job satisfactory to the State can be done with a two-coat system. Mr. Klaas indicated that this could not be done with the present paint formulation. A change in formulation is needed.

Mr. Johnson again asked Enjay for their proposed solution to the problem. Mr. Bozman said that a job satisfactory to the State can't be done under the present specifications, a change in the specifications is needed, a change to a two-coat vinyl system with a different formulation is needed, a vinyl primer one mil dry with a four mil vinyl top coat.

Mr. Johnson requested that Enjay supply the State with the proposed formulation.

Mr. Klaas asked if they could proceed with painting of the interior surfaces. Mr. Johnson indicated in the affirmative if they can get a job acceptable to the State. Mr. Klaas said that at present to get an acceptable job requires two coats, this is costly and can be done only on a temporary basis.

Mr. Bugge asked if what the State wanted was a statement from the contractor with a definite proposal to correct the problems with the paint system. Mr. Johnson affirmed that this was what the State desired.

There being no further discussion, the meeting was adjourned.

Walter J. Hart
Bridge Administration Engineer

WJH:dh

cc A. E. Johnson
Ivan D. Merchant
Edward L. Hardt
James E. Chidsey
Robert Shotwell
John Howard
Walter J. Hart
Dean Mandrell

Persons in attendance:

A. E. Johnson, Oregon State Highway Division
Ivan D. Merchant, Oregon State Highway Division
Edward L. Hardt, Oregon State Highway Division
James E. Chidsey, Oregon State Highway Division
Robert Shotwell, Oregon State Highway Division
John Howard, Oregon State Highway Division
Walter J. Hart, Oregon State Highway Division
Dean Mandrell, Oregon State Highway Division
John A. Kreiter, Industrial Painting & Sandblasting
John R. Kreiter, Industrial Painting & Sandblasting
Frank A. Klaas, Klaas Bros., Inc.
John R. Gray, Donald M. Drake Co. (Drake-Willamette)
Wm. A. Bugge, Donald M. Drake Co. (Drake-Willamette)
R. S. Everett, Andersen-Hannan
D. B. Bozman, Enjay Chemical Co.
D. Blue, Enjay Chemical Co.

NOV 17 1970

I-205-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 10, 1970

To:

SUBJECT: East Fremont Interchange,
Units A and C
Contracts 7310 and 7312
Gore Point Protection

Mr. R. L. Shcroeder
Metropolitan Engineer

M E T R O

Attention Mr. Edward L. Hardt
Metro Bridge Construction Engineer

NOTED
A. E. JOHNSON

Please refer to your letter of September 9 which enclosed a letter dated September 3 from Drake-Willamette Joint Venturers regarding bid items number 34 and 66.

I am enclosing a copy of a letter dated September 21 from our Legal Section which is self-explanatory. I also have contacted the Federal Highway Administration and requested them, through their California organization, to determine the terms of the sale or take-over of the John Rich Enterprises by the Energy Absorption Systems, Inc.

I have had no satisfaction from the Federal Highway Administration and they do not believe they will have any results. Therefore, it is our belief that the only thing we can do at this time is direct the contractor to install the gore point protection at his bid price and if he believes he has more money coming to make a claim for additional compensation.

ORIGINAL SIGNED
IVAN D. MERCHANT

Ivan D. Merchant
Bridge Engineer

IDM:dh
Enclosure

cc A. E. Johnson
Herbert A. Schell, Jr.

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NOV 10 1970
OFFICE OF
STATE HIGHWAY ENGINEER

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NOV 30 1970
FOR FILING

OREGON STATE
HIGHWAY DEPARTMENT

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

I-4C 5-8(22)3C 21

DRAKE-WILLAMETTE JOINT VENTURES
1201 North Loring Street
Portland, Oregon 97227

7310

Re: East Fremont Interchange
Contract No.'s 7310 & 7311

Gentlemen:

Vinyl paint recently applied as part of your work on Contract No.'s 7310 and 7311 is not satisfactory and is not acceptable due to imperfections in the surface.

Since our specifications for the project require you to provide a paint system which is compatible within itself and one whose vinyl coat is fully resistant to the elements, we are looking to you for a proposal which will accomplish the required results.

Very truly yours,

Robert L. Schroeder
Metropolitan Engineer

By:

NOTED
A. E. JOHNSON

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

bcc: A. E. Johnson
Ivan Merchant
John Jenkins
Robert Cunningham

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NOV 2 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22)304
7310

Form E-800-6M

STATE COPY G-1P

APPROVED EFFECTIVE DATE 10-28-70
Contingent upon modification of prop[illegible]t agreement if additional funds are required

BY [signature]
TITLE Dist. Engineer
DATE 11-2-70
FEDERAL HIGHWAY ADMINISTRATION

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Project Name East Fremont Interchange Unit A — Date October 22, 1970
Highway Stadium Freeway — Contract No. 7310
County Multnomah — Prefix 626-1017
Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304
Address 1201 North Loring Street, Portland, Oregon 97227 — Order No. 8

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Excavate and place 6" drain from Steam Pit to existing storm drain sewer.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

N.W. corner of new Union Pacific Railroad yardmans locker building.

Estimate of quantities and cost:

Drain Steam Pit	Labor	$300.00
	Equipment	88.00
	Materials	43.00
	Total	$431.00

NOTED
TOM EDWARDS

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Ground water infiltrating steam pit built with new building under Contract No. 7298, interferes with pressure reducing valve causing pressure rise above safe limit. Drain was installed to eliminate water from box. Tentative approval received FHWA. Work performed Oct. 16, 1970 - October 20, 1970.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$13,928,737.75	
Present estimate of project cost, including $431.00 for work under this order	$13,969,527.92	
Expected over-run amount	$41,221.17	
Expected over-run per cent	0.296	

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Assistant Division Engineer

Approval Recommended: Walter J. Hart Construction Engineer or Bridge Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer or Office Engineer

11-5

P-221577 7-64

I-405-(22)304 C4

Form R.20-611 7310

STATE COPY

OREGON STATE HIGHWAY DEPARTMENT

APPROVED EFFECTIVE DATE 9-24-70
Contingent upon modification of project agreement if additional funds are required
BY [signature] Dist. Engineer
DATE 10-15-70
FEDERAL HIGHWAY ADMINISTRATION

RECEIVED
OCT 19 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Project Name East Fremont Interchange Unit A — Date September 29, 1970

Highway Stadium Freeway — Contract No. 7310

County Multnomah — Prefix 626-1017

Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304

Address 1201 North Loring Street, Portland, Oregon 97227 — Order No. 7

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Build up welds on diaphragm plates at Expansion Joints.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

Throughout project as needed.

Estimate of quantities and cost:

Build up welds on moment plates

Equipment	$805.00
Material	203.00
Labor	1,074.00
Total	$2,082.00

NOTED
TOM EDWARDS

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Through an error in detailing on the contract plans, it becomes necessary to increase the weld size on the diaphragm plates at expansion joints. Prier approval received from F.H.W.A.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$13,928,737.75	
Present estimate of project cost, including $2,082.00 for work under this order	13,969,527.92	
Expected ~~XXXXXX~~ over-run amount	$40,790.17	
Expected ~~XXXXXX~~ over-run per cent	0.293	

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Assistant Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved [signature] Deputy Chief Highway Engineer, Assistant State Highway Engineer or

10-19-70

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SEP 30 1970
FOR FILING

OREGON STATE
HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

September 28, 1970

Canron Limited
Fremont Project Office
22 East Fifth Avenue
Vancouver 10, B.C.
CANADA

Attention Mr. B. T. Lawry

Gentlemen:

Proposed Change in Paint Specification
East and West Fremont Interchanges

Problems associated with the application and curing of the inorganic zinc prime coat have resulted in your request to change the previously approved material. The requested change was from Rust Ban 191 to Rust Ban 193.

As explained to you by telephone on the afternoon of September 21, the proposed change will be satisfactory to the State and the Federal Highway Administration provided a letter is received from your paint supplier through Canron stating that one, Rust Ban 193 is the equal to Rust Ban 191 except for hardness of cured coating, and, two, that Rust Ban 193 is a Type I, Class 3, self-curing inorganic zinc silicate classification paint that, in the opinion of your paint supplier, is eligible to be placed on the QPL23236 list. Inasmuch as this is a major specification change, it will be necessary to process price agreements covering the change.

At this time we have had letters from the prime contractors on both the East and West Fremont Interchanges to the effect that they will agree to the change and at no additional cost to the State.

Until the above-mentioned letter is received from the paint supplier through you, any use of this material is at your own risk. We would like very much to have this letter at the earliest possible time so that this matter can be resolved to the satisfaction of all concerned.

Very truly yours,

Ivan D. Merchant
Bridge Engineer

IDM:dh
cc Mr. Don Scott, PTL
Mr. Ken Peterson, PTL
Mr. A. E. Johnson
Mr. R. L. Schroeder
Mr. John Howard
Mr. Robert Shotwell

NOTED
A. E. JOHNSON

RECEIVED
OFFICE OF
STATE HIGHWAY ENGINEER

SEP 24 1970

I-405-8(22)304

7310

September 23, 1970

Oregon State Highway Commission

Gentlemen:

There will be on the agenda for your September 30 meeting a private crossing agreement with the Union Pacific Railroad Company requested by Drake-Willamette Joint Venturers for an access road across the Railroad's tracks at North Nesmith Avenue on the East Fremont Interchange Section in Portland.

This is the standard form of private crossing agreement prepared by the Railroad and requires the contractor to take the usual safety precautions, provide the usual insurance, keep the gates locked when the crossing is not in use, and reimburse the Railroad for any expense generated by this agreement.

We recommend your approval.

Very truly yours,

R. L. Porter
State Highway Engineer

cc: Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
F. D. Morgan (Attn: T. W. Litchfield)
L. W. Rulien

TWL:djg sr

STATE COPY

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Form E-206—6M

OREGON STATE HIGHWAY DEPARTMENT

APPROVED EFFECTIVE DATE 10-13-70
Contingent upon modification of project agreement if additional funds are required

BY L. V. Tabor
Dist. Engineer

DATE 10-13-70

FEDERAL HIGHWAY ADMINISTRATION

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Project Name East Fremont Interchange Unit A — Date August 26, 1970

Highway Stadium Freeway — Contract No. 7310

County Multnomah — Prefix 626-1017

Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304

Address 1201 North Loring Street, Portland, Oregon 97227 — Order No. 2 ~~Revised~~ Supplemental

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Furnish on the project granular backfill materials in Sewers.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

RECEIVED
SEP 25 1970
BRIDGE DIVISION

Location by station numbers:

NW 327+00 to approx. NW 333+00

Estimate of quantities and cost:

Labor, Equipment, and Materials $3,836.95

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Necessary to furnish free draining granular materials in Sewer backfilling. Excavated materials from the trench too wet for backfilling. R.R. also requested granular backfill as these sewers are under streets and railroads. Necessary to place new sewers to allow footing excavation for the structure. More material required than originally anticipated.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$13,928,737.75	
Present estimate of project cost, including $3,836.95 for work under this order	$13,967,445.92	
Expected ~~XXXXXXX~~ over-run amount	$38,708.17	
Expected ~~XXXXXXX~~ over-run per cent	0.278	

Submitted by: [signature] Resident Engineer

Approval Recommended: J. H. Cheatley Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

O.K. [signature] 10-13-70

Approved: [signature] Assistant State Highway Engineer or Office Engineer. Construction

SP*32671-734

RECEIVED
AUG 19 1970

FOR FILE
I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
August 12, 1970

To: Mr. R. E. Shotwell
Resident Bridge Engineer
1101 N. Russell St.
Portland, Oregon 97227

SUBJECT: Temporary Access Road Grade Crossing
East Fremont Interchange Section
Stadium Freeway
Contract No. 7310

Herewith you will find triplicate originals of the proposed access road agreement for the road requested by the contractor for access to this project across Union Pacific Railroad tracks.

Please obtain the contractors' signatures on page 7 of the three counterparts and return to this office for further handling.

I should have these in my hands no later than September 14, so that I may place them on the agenda for the Highway Commission meeting scheduled for September 29, 1970.

F. D. Morgan
Construction Engineer

By: ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Railroad & Utility Engineer

TWL:djg
Enclosure

cc: A. E. Johnson
R. L. Schroeder
Jack Heisa
I. D. Merchant (w/agreement)
J. L. Sollis "

NOTED
A. E. JOHNSON

Note to I. D. Merchant and J. L. Sollis:
Please review this agreement with the assumption that the contractor has accepted its terms.

RECEIVED
AUG 17 1970
OFFICE OF
STATE HIGHWAY ENGINEER

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

August 11, 1970

D 9010-32-72

Mr. F. D. Morgan
Construction Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97301

Attention: Mr. T. W. Litchfield
Railroad and Utility Engineer

Dear Sir:

Temporary Access Road Crossing
East Fremont Interchange, Unit A
Project No. I-405-8 (22) 304
Contract No. 7310

Referring to your letter of June 12, subject request of Drake-Willamette, contractor on the above-referenced project, for a private access road across our tracks in the vicinity of North Nesmith Avenue for the purpose of erecting and hauling structural steel on the project.

Attached herewith are duplicate originals and two extra copies of agreement which has been prepared in line with your request. Your attention is directed to Section 6 (a) on Page 3. Train crews and flagmen will be instructed to note any delays encountered on account of the bridge construction, including the date, time, duration of the delay, and the specific cause thereof. This information will be used in preparing bills against the State for train delays, using the following current straight time and overtime unit costs per crew per minute for yard and road crews. The amounts shown include fringe benefits based upon standard GMA per cents currently in effect; but these amounts do not reflect the effect of wage adjustments under negotiation, which might be retroactive to January 1, 1970:

	Cost Per Minute	
	Straight Time	Overtime
Yard Crews		
With firemen	$0.40	$0.60
Without firemen	0.34	0.51

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

August 11, 1970

D 9010-32-72

Mr. F. D. Morgan
Construction Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97301

Attention: Mr. T. W. Litchfield
Railroad and Utility Engineer

Dear Sir:

Temporary Access Road Crossing
East Fremont Interchange, Unit A
Project No. I-405-8 (22) 304
Contract No. 7310

Referring to your letter of June 12, subject request of Drake-Willamette, contractor on the above-referenced project, for a private access road across our tracks in the vicinity of North Nesmith Avenue for the purpose of erecting and hauling structural steel on the project.

Attached herewith are duplicate originals and two extra copies of agreement which has been prepared in line with your request. Your attention is directed to Section 6 (a) on Page 3. Train crews and flagmen will be instructed to note any delays encountered on account of the bridge construction, including the date, time, duration of the delay, and the specific cause thereof. This information will be used in preparing bills against the State for train delays, using the following current straight time and overtime unit costs per crew per minute for yard and road crews. The amounts shown include fringe benefits based upon standard GMA per cents currently in effect; but these amounts do not reflect the effect of wage adjustments under negotiation, which might be retroactive to January 1, 1970:

	Cost Per Minute	
	Straight Time	Overtime
Yard Crews		
With firemen	$0.40	$0.60
Without firemen	0.34	0.51

	Cost Per Minute	
	Straight Time	Overtime
Road Crews		
With firemen	$0.36	$0.54
Without firemen	0.30	0.45

If after you review the agreement it appears satisfactory, please arrange for execution and return of the two original counterparts for my further handling.

Yours very truly,

R. B. Hardin

RECEIVED
JUL 28 1970
FOR FILE

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304
HIGHWAY BUILDING 7310

SALEM, OREGON • 97310 • Phone 378-4511 ext. 217

July 27, 1970

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: R. B. Hardin

Re: Pneumatic Tube Adjustment
East Fremont Interchange, Unit A
Stadium Freeway
Project No. I-405-8 (22) 304
Contract No. 7310
YOUR FILE: D 9010-32-17

Gentlemen:

The estimate for the temporary adjustment of your pneumatic tube system, as submitted with your letter dated July 2, 1970, has been reviewed and approved by the State. You are hereby authorized to proceed with this work as of this date.

The State's contractor, Drake-Willamette, has agreed to bear the actual cost of this adjustment, which you estimated to be $744, since the adjustment is for their convenience.

Please coordinate your work with our Resident Engineer, Mr. R. E. Shotwell, in the usual manner.

Very truly yours,

F. D. Morgan
Construction Engineer

ORIGINAL SIGNED BY
By: T. W. LITCHFIELD

T.W. Litchfield
Railroad & Utility Engineer

TWL:ss

cc: A. E. Johnson (w/attachment)
I. D. Merchant "
R. L. Schroeder "
R. E. Shotwell "
Jack Hesla "

NOTED
A. E. JOHNSON

RECEIVED
JUL 28 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Portland, Oregon 97227
June 9, 1970
July

RE: U.P.R.R. Communication Tube
East Fremont Interchange Unit
Contract No. 7310
Bridge No. 8958-1
Prefix No. 626-1017
F.A.P. No. I-405-8(22)304

Drake-Willamette, Joint Venturers
1201 North Loring Street
Portland, Oregon 97227

Attention: Willian A. Bugge

I have received an estimate from Union Pacific Railroad for the cost of temporarily moving their pneumatic communications tube located between Piers WE 13 and WE 14.

The estimate for this work is $744.00. This is a temporary relocation for your convenience and the actual cost for this work will be deducted from your Progress Estimates.

If you agree that you want this relocation performed and the deduction of the cost from your progress estimates please sign and return this letter to my office.

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

RES:def

CC: R.L. Schroeder
Ivan D. Merchant
Files.

METROPOLITAN ENGINEER
RECEIVED
JUL 16 1970
ME AME AME MOE MOE MTE

OK W.
W. Bugge
Project Manager
Drake-Willamette

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

DEPARTMENT OF OPERATION

R. B. HARDIN
SUPERINTENDENT
OREGON DIVISION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

July 2, 1970
File: D 9010-32-17

Mr. F. D. Morgan
Construction Engineer
Oregon State Highway Department
Highway Building
Salem, Oregon 97310

Attn: Mr. T. W. Litchfield
Railroad & Utilities Engineer

East Fremont Interchange Section
Project I-405-8(22)304

Dear Sir:

State's Contractor, Drake-Willamette, has made a request of this office to temporarily relocate and replace the pneumatic tube system which presently is supported on poles above ground and crosses under the future east approach to the Fremont Bridge in the vicinity of Pier No. 13 at the foot of Russell Street.

Estimated cost to place the pneumatic tube underground temporarily and replace upon completion of project is as follows:

	Labor	Material	Total
Relocate Pneumatic Tube System Underground	$380	$128 - 4 elbows 36 - tubing $164	$544
			200
Replace Pneumatic Tube System	$200		
		TOTAL	$744

Will you please furnish authorization for the railroad to perform this work with the understanding that the State will be billed for actual costs incurred.

Routing

Morgan, Peace, Docker, Swan, Bond, Glenn, Walker, Litchfield, Cochuns, Gallagher, Johnson, Stark

RECEIVED
JUL 7 1970
CONSTRUCTION DIVISION

Yours very truly,

R. B. Hardin

R. B. Hardin

Jul 21 1970

FOR FILE

I 4(5-8(22)
7:10

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 17, 1970

To:

SUBJECT: East and West Fremont Interchanges
Steel Erection

MEMO TO THE FILES

On June 4 I met with Mr. Jack Kopetz of Howard, Needles, Tammen & Bergendoff, in my office to discuss the problem of steel erection in the East Fremont Interchange. This problem had been raised by the fabricator during the detailing of the steel on Unit A, East Fremont Interchange. The basic problem is one of erecting the cambered longitudinal girders in their fabricated positions and joining the upper and lower decks with the steel ring columns. In some instances the pouring of the deck, due to the unbalanced spans, causes an overstress in the steel columns which cannot be tolerated.

At the meeting on June 4 the consultant was requested to make a study of the construction procedures and deck pouring schedule to determine the magnitude of the problem.

On July 16 Mr. Paul Heineman and Mr. Jack Kopetz, Howard, Needles, Tammen & Bergendoff, were in the office with the results of their study. This meeting was held in Mr. A. E. Johnson's office and Mr. Ed Hardt, Assistant Metropolitan Engineer, was present from Portland.

The results of their study indicate that additional splice plates are required at pier 2E and pier 12 in Unit A of the East Fremont Interchange only. The other locations where ring sections are used to support the two-level decks it will be necessary for the steel erector to do some temporary jacking in order to make the column closures and obtain the mill-to-fit requirements at column splices. The State is to review an outline presented to us entitled 'Erection Stresses in Rings" and advise the consultant as to our thoughts on the procedure from this point of construction.

The consultant will study and prepare a criteria for use during construction and relating to the jacking requirements at the various rings in both East and West Fremonts.

Also discussed at this meeting was the general arrangement of the two units of the West Fremont Interchange structure to complete so that traffic could get to existing ground at 21st Avenue.

NOTED
A. E. JOHNSON

SP°522478-734

The consultants were handed a preliminary plan for general review only and were told that the State expected to have final plans and agreements with all parties concerned about the end of July. At this time the consultants will be contacted and requested to prepare a proposal for the completion of the design work in this area.

Ivan D. Merchant
Bridge Engineer

IDM:dh

cc A. E. Johnson
R. L. Schroeder
Attn. Ed Hardt
W. J. Hart
Bureau of Public Roads
Attn. Mr. Herbert Schell

RECEIVED
JUL 17 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 22 1970
FOR FILING

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304
HIGHWAY BUILDING
7310

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

June 12, 1970

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. R. B. Hardin

Re: Temporary Access Road
East Fremont Interchange Section
Stadium Freeway
Project No. I-405-8 (22) 304
Contract No. 7310
YOUR FILE: D 9010-32-17

Gentlemen:

Our contractor for the above captioned section, Willamette River Constructors (Drake-Willamette, joint venturers), has requested a private access road across your tracks in the vicinity of North Nesmith Avenue for the purpose of hauling structural steel to the project site.

You will find attached four (4) prints of a drawing prepared by Drake-Willamette showing the crossing they requested.

If this is acceptable, please prepare the usual access road agreement and return to this office for further handling with the contractor.

Very truly yours,

F. D. Morgan
Construction Engineer

By: ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Railroad & Utility Engineer

NOTED
TOM EDWARDS

TWL:ss

Enclosure

cc: Tom Edwards
I. D. Merchant (w/drawing)
A. E. Johnson "
R. E. Shotwell "
Jack Hesla "

RECEIVED
JUN 12 1970
OFFICE OF
STATE HIGHWAY ENGINEER

STATE COPY

RECEIVED
JUN 16 1970
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22)304
7310

APPROVED EFFECTIVE DATE 6-1-70
Contingent upon modification of project agreement if additional funds are required

BY _____ Dist. Engineer

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

DATE June 1, 1970
Date 6-15-70 U.S. BUREAU OF PUBLIC ROADS

Project Name East Fremont Interchange Unit A

Highway Stadium Freeway — Contract No. 7310

County Multnomah — Prefix 626-1017

Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304

Address 1201 North Loring Street, Portland, Oregon 97227 — Order No. 5

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Replace concrete pavement removed by footing excavation.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

SW sta. 310+05.26 and SW sta. 311+65.20

NOTED
F. B. KLABOE

Estimate of quantities and cost: Replace Concrete Pavement at Pier WS-1 & WS-2.

Materials	$688.50
Labor	$186.50
	$875.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

In the footing excavated area at WS-1 & WS-2 there exists 1.0 ft. of Concrete pavement. It is necessary to replace this surface in kind. There is no provision for paying for this work in this contract. No work has been performed. Prior approval has been received from BPR.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$13,928,732.75
Present estimate of project cost, including $ 875.00 for work under this order	$13,959,549.22
Expected under-run / over-run amount	$ 30,816.47
Expected under-run / over-run per cent	0.221%

Space to right of this line is for use of Salem Office

Submitted by: _____ Resident Engineer

Approval Recommended: _____ Assistant Division Engineer

Approval Recommended: _____ Construction Engineer or Bridge Engineer

Approved: _____ Deputy State Highway Engineer, Assistant State Highway Engineer or District Engineer

6-17-70

GP-23877-724

RECEIVED
MAY 22 1970

OREGON STATE HIGHWAY DIVISION

I-405-8(22)304
1310

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

May 20, 1970

City of Portland
Bureau of Traffic Engineering
420 S. W. Main Street
Portland, Oregon 97204

ATTENTION: Mr. Donald E. Bergstrom
Traffic Engineer

Re: Traffic Signal Adjustment
East Fremont Interchange Section
Stadium Freeway I-405
Multnomah County
Project No. I-405-8 (22) 304

Gentlemen:

Your estimate and sketch map for the adjustment of your facilities on this project, as submitted with your letters of September 23, 1969 and March 25, 1970, have been approved by the State and the Bureau of Public Roads. This will confirm our verbal authorization to proceed with the work as of April 17, 1970.

Please contact Mr. R. E. Shotwell, Resident Bridge Engineer, 1101 N. Russell Street, Portland, Oregon 97227, Phone: 235-8911, Ext. 74, and keep him advised of your work schedule so that your work may be coordinated with that of the State's contractor.

Reimbursement for the work performed on and subsequent to April 17, 1970, in the amount of $1300.00, will be made in accordance with Paragraph 7g (3) of PPM 30-4 upon receipt of your statement of charges. Please be sure to include the beginning and completion dates of the work in the bill.

Very truly yours,

F. D. Morgan
Construction Engineer

By: James Litchfield

for T. W. Litchfield
Utilities Liaison Engineer

JMC:ss
cc: F. B. Klaboe
R. E. Simpson
V. L. Gallagher (2) (w/attach.)
V. E. Skoog "
A. E. Johnson (w/attach.) (2)
R. E. Shotwell "
G. N. Hopkins "
Jack Hesla "

Note to A. E. Johnson: Please have a State Force Order prepared and submitted for this work. Return one copy of Est. and sketch with SFO.

RECEIVED
MAY 21 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 20 1970
FOR FILING

5-18-70

FORM PR-1240 (REV. 8-68)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
I-405-8(22)304

STATE PROJECT NO.

FROM: R. E. SIMPSON
DIVISION ENGINEER
SALEM, OREGON

PROGRAM NO.

ITEM NO.

COUNTY NAME
MULTNOMAH

PROGRAM STAGE (Check)
[ ] 1 [XX] 2

TO: I-405-8(22)304
73+0

MR. FORREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER
JULY 16, 1969	APRIL 17, 1970	I-405
		STATE ROUTE NUMBER: EAST FREMONT INTERCHANGE SECTION

LIMITS OF AUTHORITY

OUR PROGRAM MEMORANDUM DATED JULY 3, 1969 AUTHORIZED YOU TO PROCEED WITH PREPARATORY WORK FOR ALL UTILITY ADJUSTMENTS TO BE INCLUDED IN THE CONSTRUCTION PHASE OF THE SUBJECT PROJECT EFFECTIVE ON THAT DATE. YOU ARE NOW AUTHORIZED TO PROCEED WITH ACTUAL ADJUSTMENTS FOR THE CITY OF PORTLAND EFFECTIVE APRIL 17, 1970. REIMBURSEMENT ON AN AGREED LUMP SUM BASIS OF $1,300.00 IS APPROVED.

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- [ ] PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- [ ] PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
- [X] OTHER (Specify) UTILITY ADJUSTMENT
- [ ] ACQUISITION OF RIGHT-OF-WAY
- [ ] CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
- [ ] CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

APPROVAL AND PARTICIPATION FOR THE ELIGIBLE PORTION OF THE WORK AUTHORIZED ABOVE IS SUBJECT TO THE PROVISIONS OF PPM 30-4 DATED FEBRUARY 14, 1969 AND PPM 30-4.1 DATED OCTOBER 1, 1969.

WE APPROVE THE AGREEMENT WITH THE CITY OF PORTLAND CONSISTING OF YOUR AUGUST 28, 1969 UTILITIES & RAILROAD ATTORNEY'S LETTER, THE MARCH 25, 1970 CITY OF PORTLAND'S LETTER AND THE PLANS AND ESTIMATE FURNISHED BY MR. LITCHFIELD'S MAY 8, 1970 LETTER.

THE CITY'S PROPERTY RIGHTS AS COVERED BY CITY-STATE AGREEMENTS ARE ACKNOWLEDGED. NO PERMIT WILL BE REQUIRED AS ADJUSTMENTS WILL BE ON CITY STREETS.

5-20-70
Yours

RECEIVED
MAY 20 1970
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
MAY 18, 1970		DIVISION ENGINEER

PREVIOUS EDITION MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

Form FHWA-12 (12-67)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7310

DATE: May 8, 1970

In reply refer to: 08-35-DA/420.252

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

ICLABOE

SUBJECT: Oregon Projects I-405-8(22)304, I-405-8(23)304 and I-405-8(24)304
East Fremont Interchange
FHWA EEO Compliance Review on Donald M. Drake Co.

The FHWA held a home office compliance review on April 21, 1970. The contractor is considered to be in compliance based on the Company's EEO officer's statement that he accepts and will take action on the following recommendations.

1. It is recommended he place a copy of the required Company EEO Policy at the job sites.

2. It is recommended he increase their affirmative action in locating, qualifying, and increasing the skills of minority group applicants. The employment assistance director of the BIA office as an example could be contacted.

3. It is recommended he increase his efforts to develop in cooperation with the operating engineers and Teamsters unions, joint training programs aimed towards qualifying minority members for membership. Also make an effort to increase minority group opportunities within the unions.

4. It is recommended he have the subcontractors fill out the Form PR-1391 properly. Deficiencies were noted in the summarization of new hires.

Recommendations 1 and 4 may be answered by Attachment to the submission of the next PR-1391s. Recommendations 2 and 3 involves the submission of a monthly progress report for the next 3 months.

Attached is a copy of the FHWA Compliance Data Report.

Enclosure

5-13-70
RETURNED TO
By Morgan
w/ltr

RECEIVED
MAY 12 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

COMPLIANCE DATA REPORT

1. STATE: Oregon

2. [X] CONSTRUCTION [ ] NON-CONSTRUCTION

3. [ ] DIRECT FEDERAL [X] FEDERALLY ASSISTED

4. REVIEW REPORT NUMBER: R/8-70-143

5. REVIEW AUTHORITY
[X] EXECUTIVE ORDER 11246 AS AMENDED [ ] SEC. 22(a) FED. HWY. ACT. 1968 [ ] CIVIL RIGHTS ACT 1964 AS AMENDED [ ] OTHER (Specify)

6. [ ] *PRE-AWARD REVIEW *(Not applicable to Federal-Aid Highway Projects) [ ] POST-AWARD REVIEW [ ] FOLLOW-UP REVIEW

7. [ ] ON-SITE [X] HOME OFFICE

8. CONTRACT OR PROJECT NO.	9. CONTRACT VALUE	10.	11.	12. DATES OF REVIEW
I-405-3(22)304, I-405-3(23)304, I-405-3(27)304	$23,985,192.00	[X] COMPREHENSIVE REVIEW	[ ] SPECIAL REVIEW	April 21, 1970

13. CONTRACTOR IDENTIFICATION (Identify if Minority Enterprise) [X] PRIME [ ] SUB [ ] VENDOR [ ] SUPPLIER [ ] OTHER (Specify)

14a. NAME AND ADDRESS OF CONTRACTOR	15. NAME AND TITLE OF POLICY OFFICER	17. NAME AND TITLE OF EQUAL OPPORTUNITY EMPLOYMENT OFFICER
Donald M. Drake Co. 1740 N. W. Flanders St. Portland, Oregon 97202	Franklin G. Drake, Pres.	B. K. McDonald, Treasurer
14b. PROJECT ADDRESS IF DIFFERENT	**16. NAME AND TITLE OF PROJECT OFFICER**	**18. IS WRITTEN AFFIRMATIVE ACTION COMPLIANCE PROGRAM AVAILABLE?**
E. Fremont Interchange 1201 N. Loring St. Portland, Oregon 97227	William A. Bugge, Project Manager	SEE ITEM 30H [X] YES [ ] NO

19. CONTRACT OR PROJECT PRODUCTION SCHEDULE	BEGINNING DATE	ESTIMATED COMPLETION DATE	ANTICIPATED PEAK EMPLOYMENT DATES
	October 1969	October 1971	May 1971

20. DETERMINATION OF COMPLIANCE STATUS: [X] IN-COMPLIANCE [ ] IN-NON-COMPLIANCE [ ] SEE FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND AGREEMENT DETAILS PAGE 4 ITEM 31 AND 32

21. SUB-CONTRACTORS, VENDORS, SUPPLIERS, ETC. *(Name, Address, Total Employees, Percent Minorities) (Indicate if a Minority Enterprise)*

John L. Jersey & Sons, Inc., Portland, Ore. -- 7 employees -- 14% minorities
W. R. Grasle Co., Portland, Oregon -- 4 " -- 0% "
C. J. Montag & Sons, Portland, Oregon -- 8 " -- 12½% "
Gilmore Steel Contractors, Vancouver, Wn. --18 " -- 11% "
Coral Corp., Gladstone, Oregon -- 3 " -- 0% "
U. S. Steel Corp., Portland, Oregon -- 2 " -- 0% "

22. UNION AFFILIATIONS AND OTHER RECRUITING AND TRAINING DATA

A. UNION TITLE OR IDENTIFICATION	B. UNION LOCAL NUMBER	C. DOES UNION HAVE EXCLUSIVE REFERRAL RIGHTS		D. DOES UNION SPONSOR OR PARTICIPATE IN PRE-APPRENTICE, APPRENTICE, OR POST-APPRENTICE TRAINING PROGRAMS?		E. DOES CONTRACTOR SPONSOR OR PARTICIPATE IN PRE-EMPLOYMENT, APPRENTICE, OR POST EMPLOYMENT TRAINING PROGRAMS?	
		YES	NO	YES	NO	YES	NO
Cement Masons	555	X		X		X	
District Council of Carpenters		X		X		X	
District Council of Laborers	320	X		X		X	
Joint Council of Teamsters #37	162	X			X		X
Operating Engineers	701	X			X		X
Ironworkers	29	X		X		X	
Pile drivers	2416	X		X		X	

23. OTHER RECRUITING SOURCES, ESPECIALLY MINORITY OR POVERTY ASSISTANCE ORIENTED

A. NAME OR OTHER IDENTIFICATION	B. ADDRESS
State Employment Office	Portland, Oregon
Private employment agencies (not considered to be minority orientated)	" " " " " "
Trade Journals	" " " " " Portland, Ore.
Local newspapers-Oregonian & Daily Journal of Commerce(not considered to be minority orientate	
AGC and their contacts	
Respective Union Locals	
Employees	

FORM FHWA-86 EXISTING STOCKS OF FORM FHWA-86 (11-67) WILL NOT BE USED

24. ON-SITE CONSTRUCTION EMPLOYMENT DATA for Month Ending March 31, 1970

TABLE A

LINE NO.	JOB CATEGORIES	TOTAL EMPLOYEES		TOTAL MINORITIES		NEGRO		ORIENTAL		AMERICAN INDIAN		SPANISH SURNAMED AMERICAN		APPRENTICES		ON THE JOB TRAINEES	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1	OFFICIALS (MANAGERS)	1															
2	SUPERVISORS	4															
3	FOREMEN	5															
4	CLERICAL	1	1		1		1										
5	EQUIPMENT OPERATORS	9															
6	MECHANICS																
7	TRUCK DRIVERS	1															
8	IRONWORKERS																
9	CARPENTERS	16		4		4								3			
10	CEMENT MASONS																
11	ELECTRICIANS	8															
12	PIPEFITTERS, PLUMBERS																
13	PAINTERS																
14	LABORERS, SEMI-SKILLED	12		4		4											
15	LABORERS, UNSKILLED																
16																	
17																	
18																	
19																	
20																	
21	TOTAL	57	1	8	1	8	1							3			
22	TOTAL EMPLOYMENT FROM PREVIOUS REPORT (IF ANY)																

TABLE B

23	APPRENTICES	4		3		3											
24	ON THE JOB TRAINEES																

25. SUMMARIZE NEW HIRES FOR THE CURRENT MONTH INDICATING MINORITIES AND NON-MINORITES BY JOB CATEGORIES

4 pilebutts including 1 apprentice
2 teamsters
10 carpenters including 1 apprentice (Negro)
3 operating engineers
3 laborers

22 TOTAL (1 minority or 4½% of total)

26. SUMMARY ANALYSIS OF EMPLOYMENT DATA

The above employment data reflects favorable minority representation among the Carpenter craft and the Laborers. However, it is hoped that minority representation will eventually include American Indian and Spanish Surnamed Americans (both being a large part of the minority make up within Oregon and surrounding confines of Portland). Weaknesses are apparent within the Equipment Operators craft. Contractor's subs also have zero representation in this craft to date. Analysis also points out no minorities within the Foremen and Supervisory categories. Contractor is continuously monitoring his present minority work force for promotional possibilities and thus overcome this weakness.

27. CONTINUATION FROM PAGE 1-4 *(Show Item "No." Being Continued).* *IF ADDITIONAL SPACE IS REQUIRED, ATTACH SEPARATE SHEETS AND KEY ANSWERS TO ITEM NUMBERS*

(continued from number 31, page 4)

exist, and those which may develop. A strong, vigilant and alert, progressive program will be necessary for the life of the project. Time and much efforts over and beyond those of the contractors agents (working for numerous other contractors at the same time) will be necessary for success of contractor's EEO program for balance of construction.

28. HOME OFFICE EMPLOYMENT DATA -- April 21, 1970

LINE NO.	OCCUPATIONS (A)	MALE EMPLOYEES					FEMALE EMPLOYEES					TOTAL ALL EMPLOYEES (L)
		TOTAL MALES (B)	MINORITY GROUPS				TOTAL FEMALES (G)	MINORITY GROUPS				
			NEGRO (C)	ORIENTAL (D)	AMERICAN INDIAN (E)	SPANISH AMERICAN (F)		NEGRO (H)	ORIENTAL (I)	AMERICAN INDIAN (J)	SPANISH AMERICAN (K)	
1	OFFICIALS AND MANAGERS	7										
2	PROFESSIONALS	7										
3	TECHNICIANS	2										
4	SALES WORKERS											
5	OFFICE AND CLERICAL	3					10					
6												
7												
8												
9	Sub-total (White-collar)	19					10					
10	CRAFTSMEN *(Skilled)*	1										
11	OPERATIVES *(Semi-skilled)*	3		1								
12	LABORERS *(Unskilled)*											
13	SERVICE WORKERS											
14												
15												
16	Sub-total (Blue-collar)	4		1								
17	TOTAL	21		1			10					
18	Total employment from previous report (if any)											

THE DATA BELOW SHALL ALSO BE INCLUDED IN THE FIGURES FOR THE APPROPRIATE OCCUPATIONAL CATEGORIES ABOVE)

19	ON-THE-JOB TRAINEES	WHITE COLLAR											
20		PRODUCTION											

29. SUMMARY ANALYSIS OR EMPLOYMENT AND TRAINING DATA

The above data reflects 6 people working at their Beaverton shop and warehouse including the shop manager. Only 2 new hires (1 clerk and 1 office secretary) have been made during past 12 months. Turnover in the home office is very limited; but management intends to accept each opening as an affirmative action challenge to gain minority applicants and a qualified minority hire. Broadening of their recruitment to include more minority orientated sources should help.

30. SUMMARY, FINDINGS, CONCLUSIONS, RECOMMENDATIONS, AND AGREEMENTS

YES	NO	
		A. ARE REQUIRED POSTERS CONSPICULOUSLY DISPLAYED? Contractor has posted his affirmative action program in lieu of the required EEO Policy.
X		B. HAVE REQUIRED WRITTEN NOTICES BEEN SENT TO UNIONS?
X		C. ARE RECRUITING PUBLICATIONS USED TO SHOW "AN EQUAL OPPORTUNITY EMPLOYER"?
X		D. ARE SUCH PUBLICATIONS CIRCULATED IN MINORITY ORIENTED COMMUNITIES?
X		E. HAS CERTIFICATION RE: USE OF NON-SEGREGATED FACILITIES BEEN MADE?
X		F. ARE SUCH FACILITIES IN EFFECT PROVIDED ON A NON-SEGREGATED BASIS?
X		G. HAVE OTHER REPORTS REQUIRED BY FEDERAL, STATE, MUNICIPAL, OR OTHER STATUTES, REGULATIONS, DIRECTIVES, ETC., BEEN SUBMITTED?
X		H. HAVE GOALS TARGETS AND OTHER CONDITIONS OF AFFIRMATIVE ACTION COMPLIANCE PROGRAMS BEEN IMPLEMENTED IN SATISFACTORY OR ACCEPTABLE MANNER?
X		I. HAVE COMPLIANCE OR OTHER REVIEWS MADE BY OTHER AGENCIES RESULTED IN A DETERMINATION OF COMPLIANCE?
X		J. ARE PRESCRIBED EQUAL EMPLOYMENT OPPORTUNITY CLAUSES INCLUDED IN ALL APPLICABLE PURCHASE ORDERS, SUB-CONTRACTS, AND COLLECTIVE BARGAINING UNION AGREEMENTS?
X		K. ARE APPLICATIONS FOR EMPLOYMENT ACCEPTED, AND ARE SELECTIONS IN EFFECT MADE, WITHOUT REGARD TO RACE, COLOR, RELIGION, SEX OR NATIONAL ORIGIN?
		L. ARE TRANSFER, WAGE, TRAINING, MANPOWER DEVELOPMENT, PROMOTION AND OTHER EMPLOYMENT PRACTICES ACHIEVING EQUAL EMPLOYMENT RESULTS?

31. OTHER SIGNIFICANT OBSERVATIONS, COMMENTARY AND/OR DEFICIENCIES AND VIOLATIONS. *(SHOULD BE INDIVIDUALLY NUMBERED)*

Management was cooperative at all times during the review. Sincere agreement with principles and desire of the Executive Order are apparent from statements and recent action of management. No EEO program opposition was detectable from any part of the company personnel. Management shows strong concern about reaching and maintaining a favorable compliance position and I believe they realize that complying with their affirmative action commitment will be no easy matter.

The contract is large in dollar volume, located in a pivotal position for EEO compliance observation (at edge of black Albina central city area of Portland), will be under construction probably for at least another year and a half, and will be employing between 150-200 people (subs included) during fothcoming peak employment period. Therefore, it is incumbent upon management to continue with a well-planned affirmative action program, hopefully including good public relations with the black residents of the construction area, strive to overcome weaknesses which presently

(continued under number 27, page 2)

32. RECOMMENDATIONS AND AGREEMENTS FOR CORRECTIVE ACTION AND TIME SCHEDULE *(INDIVIDUALLY NUMBERED)*

1. Place a copy of the required company EEO Policy on the bulletin board in front of the on-site office, and a second copy on the bulletin board within your on-site carpenter assembly building.
2. Increase affirmative action in locating, qualifying and increasing the skills of minority group applicants. Immediate contact and acquaintence should be made for example with the Employment Assistance Director of the nearby BIA office.
3. Increase efforts to develop in cooperation with the Operating Engineers and Teamsters unions, joint training programs aimed toward qualifying minority group members for membership.

(continued on attached sheet)

33. REVIEWED BY (INCLUDE COMMENTARY MEMO IF NON-CONCURRENCE)	☒ A. REGIONAL ADMINISTRATOR	☒ CONCUR	☐ DO NOT CONCUR	SIGNATURE AND DATE Deputy R. C. Wolcott 5/1/70
	☒ B. REGIONAL OFFICE OF CIVIL RIGHTS	☒ CONCUR	☐ DO NOT CONCUR	A. O. Shellenberger 4/30/70
	☐ C. DIVISION ENGINEER	☐ CONCUR	☐ DO NOT CONCUR	
34. CONDUCTED BY	☒ A. REGIONAL OFFICE	SIGNATURE, TITLE AND DATE A. O. Shellenberger, Reg. Civil Rights Officer 4/30/70		
	☐ B. DIVISION OFFICE–	SIGNATURE, TITLE AND DATE		

(Continued from number 32, page 4)

4. Contractor and subcontractor increase affirmative action in obtaining the cooperation of the Operating Engineers union local to increase minority group opportunities within the union and to also effect referrals by such union of minority group employees.
5. Have subcontractors fill out the Form PR-1391 properly. Deficiencies in particular have been noted in the space where they are to summarize new hires for the current month indicating minorities and non-minorities by job categories.
6. Contractor's action to recommendations 1 & 5 should be answered via an attachment with his next PR-1391 submittal. Contractor should submit a progress report to recommendation 2, 3 & 4 at 30 day intervals during the next 3 months.

On April 27, 1970, based upon the company's EEO Officer's statement that he accepts and will take action on the recommendations, the contractor is considered to be in compliance.

RECEIVED
APR 29 1970

I-405-8(22)1
1311C

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 28, 1970

SUBJECT: Stay-in-Place Metal Deck Forms
Units A and B
East Fremont Interchange
Multnomah County
Contract 7310 and 7311

To:

Mr. A. E. Johnson
Metropolitan Engineer

M E T R O

Attention Mr. Edward L. Hardt
Asst. Metropolitan Engineer

I have reconsidered the request of Drake-Willamette Joint Venturers for permission to utilize stay-in-place metal forms on this project.

Considerable damage to the prime coat of paint may occur from working in the limited area of the boxes. Painting inside the closed boxes can be extremely hazardous. For these reasons the request of Drake-Willamette will be granted subject to compliance with the following conditions.

1. Support anchors for the metal forms will be installed by the steel fabricating shop and will be placed prior to shop painting. In the welding of support angles no welding will be permitted within one inch of the edge of a flange.

2. After the steel is erected and fully bolted, spot painting as required and the final field painting inside the boxes may be done.

3. Stay-in-place metal forms will be used to form the deck inside the boxes only. Removable forms shall be used to form the deck between boxes and the deck overhang.

4. The top of corrugation of the metal forms will be set at plan elevation for the bottom of the deck.

5. A credit will be made to the State in the amount of twenty cents per square foot for the area formed with stay-in-place metal forms.

6. The requirements of the attachment to Bureau of Public Roads Circular Memorandum (CM) 32-40, a copy of which is enclosed, shall be followed except as may be superseded by the conditions cited above.

NOTED
JOM EDWARDS

SP*82475-734

Your particular attention is called to the requirement that fabrication plans for the stay-in-place metal forms must be submitted for approval. In the application of the metal forms on this project, there are several specific points which are of concern. They are as follows:

A. The detail of the forms at the junction with the floor beams or ring beams.

B. A review of the stability of the support angles for side sway and buckling. The vertical edge of the concrete lug must be maintained at the edge of flange.

7. Some form panels will be removed from the early pours to prove the concrete placement. If the resulsts are satisfactory and the placement procedures remain the same, panels will not have to be removed in succeeding pours.

If the above conditions meet the contractor's approval, they may consider this as approval of the use of the metal stay-in-place forms subject to the receipt and approval of detail drawings covering their installation.

A price agreement will have to be prepared to cover the use of the stay-in-place metal forms.

Ivan D. Merchant
Bridge Engineer

WJH:DH
Attachment

cc Howard, Needles, Tammen & Bergendoff /w/ attach.
Tom Edwards
Robert Shotwell /w/ attach.

RECEIVED
APR 28 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 23 1970
FOR FILING

OREGON STATE HIGHWAY DIVISION

I-405-8(24)FC4
7310

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

April 22, 1970

Drake-Willamette, Joint Venturers
1201 North Loring Street
Portland, Oregon 97227

Attention Mr. William Bugge

Gentlemen:

East Fremont Interchange
Contracts 7310 and 7311
FAP I-405-8(24)304

By letter dated April 2, 1970, from Canron, we received a document titled "East Fremont Interchange Shipping List". A copy of this document is attached for your ready reference although I notice that you received a copy of the letter and the attached document.

This document, identified as a shipping list, requests our inspection agency, Pittsburgh Testing Laboratory, to sign the shipping list indicating that the partially fabricated girders have been inspected with the applicable provisions of contracts 7310 and 7311 and that the girders have been authorized for shipment from Japan.

Normal procedure is for Pittsburgh Testing Laboratory to place their stamp on the girders after an inspection of fabrication completed to that time.

Inasmuch as the Japanese fabricators are material suppliers to Canron, who in turn are your material suppliers for the structural steel for the above-mentioned projects, it is our belief that any paper work authorizing shipment of material from Japan is, and should be, between your material suppliers.

NOTED
TOM EDWARDS

For the above-mentioned reason the State declines to authorize Pittsburgh Testing Laboratory to sign the "Shipping List". Approval of the partially fabricated girders will be indicated by PTL stamp in the customary manner followed in all fabricating shops.

Very truly yours,

ORIGINAL SIGNED
IVAN D. MERCHANT
Ivan D. Merchant
Bridge Engineer

IDM:DH
Attachment

cc Canron
Western Bridge Division
22 East 5th Avenue
Vancouver 10, B. C.
CANADA
Attn. Mr. P. G. Higgins
Contracts Manager

bc Pittsburgh Testing Laboratory /w/ Encl.
Attn. Mr. Don Scott

A. E. Johnson /w/ Encl.

Tom Edwards /w/ Encl.

RECEIVED
APR 22 1970
OFFICE OF
STATE HIGHWAY ENGINEER

CANRON LIMITED

WESTERN BRIDGE DIVISION

145 WEST FIRST AVENUE, VANCOUVER 10, B.C. – TEL. 874-2311

5000/67 5000/20

Reply to:

FREMONT PROJECT OFFICE
22 East Fifth Avenue
Vancouver 10, B.C.
874-3012
Tel. ~~688-2929~~

April 2, 1970

Oregon State Highway Dept.
Highway Bldg.
Salem, Oregon 97310
U S A

Attn: Mr. Ivan D. Merchant

Dear Sirs:

Re: East Fremont Interchange
Inspection Documentation

Further to our meeting with you on 13 March 1970 we have prepared a draft shipping list on which is shown a statement we propose the P.T.L. inspector sign and stamp, so as to provide a record for Mitsui on which is listed the girders already stamped by the inspector and authorized for shipment.

A copy of this draft shipping list is attached for your consideration and approval.

With regard to final inspection and acceptance of any part of the structural steel, we draw your attention to the last sentence of the statement we propose the inspector sign, and trust that you will find it satisfactory.

In order to catch Mr. Scott before his departure to Japan, we dictated the wording of the attachment over the telephone to his secretary for his information and comment to you.

If you have any questions on the attachment, please do not hesitate to contact us.

Very truly yours,

CANRON LIMITED
WESTERN BRIDGE DIVISION

P.G. Higgins

P.G. HIGGINS, P.Eng.
Contracts Manager

NOTED
IVAN D. MERCHANT

RECEIVED
APR 6 1970
BRIDGE DIVISION

Attach.

FORMERLY CANADA IRON FOUNDRIES LIMITED

cc: Drake-Willamette - Attn. Mr.W.Bugge
Mitsui-Vancouver -Attn. Mr.S.Chubachi

EAST FREMONT INTERCHANGE

SHIPPING LIST

(This list will be prepared by the fabricator at each plant and will list the girders and/or rings to be included in a particular shipment and which have been stamped by the PTL inspector and authorized for shipment.)

eg. UNIT B

UNIT WN-1	Girders A1 through A7
	Girders B1 through B7
UNIT SW-3	etc.

SIGNATURE OF AUTHORIZED OFFICER OF MITSUI

The above-listed partially fabricated girders and/or rings have been inspected in accordance with the applicable provisions of Contracts Nos. 7310 and 7311 of the Oregon State Highway Commission and have been authorized for shipment from Japan. The signing of this list is not and shall not be construed in any way as constituting final inspection by the Engineer or acceptance by the State of the above-listed girders and/or rings.

SIGNATURE OF P.T.L. INSPECTOR

DATE

P.T.L. STAMP

RECEIVED
APR 6 1970
BRIDGE DIVISION

RECEIVED
APR 2 1970

Form FHWA-12 (12-67)

UNITED STATES GOVERNMENT

FOR F[illegible]

Memorandum

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
7310 Attention: Mr. Tom Edwards

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: April 20, 1970

In reply refer to: 08-35.6

Edwards

SUBJECT: Oregon I-405-8(20)303 and I-405-8(22)303
West and East Fremont Interchanges

Mr. Edwards' April 10 letter requested our approval of a proposed erection schedule, including painting, and the use of stay-in-place metal deck forms over the steel box girders. Price agreements are to be written to cover the changes.

The erection-painting schedule is satisfactory. The Special Provisions require the final coat of paint to be applied after the steel is erected. The proposed procedure follows this restriction and should require no price agreement.

I approve the use of metal stay-in-place forms on these two projects, with the understanding that a credit will be made in the amount of $0.20 per square foot of SIP forms used. It is also my understanding that the provisions of the Attachment to the August 19, 1969 Circular Memorandum on SIP forms will followed including that of removing at least one form panel during an early deck pour. Also of concern is the welding of form supports on the girder flanges. This office would prefer welding to be held to a minimum, and in no event should welding be allowed near the edges of the flanges.

Your attention is invited to the provision that SIP forms will not be used under longitudinal deck joints.

NOTED
TOM EDWARDS

Copy Lvd 4-23-70

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
APR 13 1970
FOR FILING

I-405-8(32)304
1310

April 10, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Box 300
Salem, Oregon 97308

Dear Sir:

During recent inspection trips for the purpose of viewing the trapezoidal box girders for Contract No. 7214, West Fremont Interchange, it has become evident that our specification for forming concrete decks on these structures is entirely unreasonable and unrealistic. The specifications require falsework to be removed from inside the steel boxes after pouring and before painting.

It is evident that working inside the boxes, due to the extremely limited working area, will cause considerable damage to the prime coat of paint. In addition, at a seminar with the paint suppliers this past week, we were advised that applying the final coat inside the steel box girders would be extremely dangerous and probably injurious to the personnel because of the chemical fumes of the paint.

Contractors on both the West Approach (Contract No. 7214) and Units A and B of the East Approach (Contracts No. 7310 and 7311) have proposed the use of stay-in-place steel forms for the area inside the steel box girders only. With your approval, I propose to initiate Price Agreements concerning forming and painting as follows:

1. The shop coat will be applied at the fabrication plant.

2. The steel will be erected and bolted.

3. Spot painting, if required, and final field coat painting inside the boxes will be processed.

4. Stay-in-place steel forms will be used for the deck forms in the area over the boxes.

5. Support anchors for the metal forms will be installed by the steel fabricator in the fabricating shop and will be in place prior to shop painting.

6. The top of the corrugation of the metal forms will be set at plan elevation for the bottom of the deck.

7. The stay-in-place steel forms will be galvanized in conformance with the requirements of ASTM A446-67 with a two-ounce galvanized coating. Design criteria, as related to allowable stresses and deflections, will be as set forth in the attachment to Bureau of Public Roads' Circular Memorandum 32-40.

8. A reduction in price at least equal to the $0.20 per square foot credit outlined in the Bureau's Circular Memorandum will be secured. The savings on the West Approach will approximate $30,000. We have not at this time calculated the savings on the East Approach.

Your earliest comments on this proposal would be appreciated.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

TE:ja

bc Forrest Cooper
R. L. Porter
Victor D. Wolfe
Ivan Merchant

March 25, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Post Office Box 300
Salem, Oregon 97301

Dear Mr. Simpson:

Re: 08-35-08
Oregon Projects (22),(23),(24)
East Fremont Complex

I have your memo of March 12 concerning use of workmen other than laborers for temporary flagmen for the protection of traffic.

We are revising our orders for extra work on each of the contracts per your instructions.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

CAG:dh mc
bc Forrest Cooper
R. L. Porter
I. D. Marchant

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: March 12, 1970

In reply refer to: 08-35-DB

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(22), I-405-8(23), and I-405-8(24)
East Fremont Complex, Units A, B, and C
Contract Nos. 7310, 7311, and 7312
Flagging

Mr. Edwards' February 27 letter requested an indication if Federal-aid participation could be expected in a plan to utilize as temporary flagmen, pile bucks or other workers paid wages higher than laborers. The contractor has indicated that utilizing a workman from the crew moving equipment or other operations for temporary incidental flagging would result in an overall savings to the State.

I see no objection in participation with Federal-aid funds in the actual wages paid the workman's being temporarily utilized as a flagman.

In order to properly document the change, however, the extra work order covering flagging on the project should be revised to specifically provide for traffic flagmen wages at the higher rates and should include supporting information to demonstrate that such a revision will result in an overall savings to the contracting agency.

RECEIVED
MAR 17 1970
BRIDGE DIVISION

RECEIVED
MAR 16 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
APR 22 1970
FOR FILING

I-405-8(22)304
7310

H j
3-17-70

March 19, 1970

Drake-Willamette, Joint Venturers
1201 N. Loring Street
Portland, Oregon 97227

MISC. CONTRACTS and AGREEMENTS No. 3926

Attention: Mr. R. E. Grant

Gentlemen:

Attached for your records is a fully executed copy of a supplemental agreement with Donald M. Drake Company and Willamette-Western Corporation modifying certain specifications dealing with administrative procedures that will simplify supervision of Contracts 7310, 7311 and 7312.

A fully executed copy of this agreement has been retained for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

fkm
Att.
cc Ivan Merchant
G. E. Rohde (xerox copy of agreement attached)

RECEIVED
MAR 20 1970
FORM E-80-E (12-67)

FOR FILE

I-405-8(22)304
1310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
March 18, 1970

To: A. E. Johnson
Division Engineer
5821 N.E. Glisan Street
Portland, Oregon 97213

Attention: Ed Hardt

SUBJECT: East Fremont Interchange
Units A, B & C
Contracts Nos. 7310, 7311 & 7312
Stay-In-Place Deck Forms

Your letter of March 13 enclosed a letter dated March 5 from Drake-Willamette Joint Venturers on the East Fremont Interchange. This letter requested the use of "Stay-in-Place" deck forms within the steel box girder sections and offered the State a credit of .20¢ per square foot for the area formed or approximately $30,000.

This subject first came up during the advertising period on the West Fremont Interchange and was the subject of an addendum letter denying the request to use steel forms within the steel box girder sections. Paragraph 404-3.16 of the Special Provisions for Unit A refers to the same subject and requests removal of all form work from the cells of the steel box girders and also refers to form work in the concrete box girders.

It is our desire that the form work be removed as specified in the above mentioned Article 404-3.16.

Ivan D. Merchant
Bridge Engineer

IDM:jf
cc: Tom Edwards

NOTED
TOM EDWARDS

RECEIVED

RECEIVED
MAR 26 1970

OREGON STATE HIGHWAY DEPARTMENT

105-8(22)304
7216

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

March 5, 1970

Mr. W. A. Bulley
Deputy Director
Washington State Highway Department
Highways-Licenses Building
Olympia, Washington 98501

Dear Mr. Bulley:

Mr. Shaw has referred to this office for answer, your question concerning our use of Pittsburgh Testing Laboratory for inspection of structural steel being fabricated in Japan.

As you are probably aware, the Bureau of Public Roads has ruled that the employment of outside agencies for this type of work is consulting engineering and as such comes under the purview of their PPM 40-6. This, of course, requires a selection policy by the Department and formal agreements covering the work.

The ball started rolling on the Fremont project when the first contractor for the West Approach complex placed his order for fabricated structural steel with a Vancouver, B.C. plant. Our out-of-state travel regulations and limited personnel experienced in this type of work dictated the use of a consultant for the work.

We sent our chief structural inspector, Mr. Rief, to Vancouver to review the plant, equipment, and personnel of the Vancouver plant and, also, to investigate any Vancouver-based consultants who might have the capability of performing the inspection work for us.

After Mr. Rief's report we selected three United States-based firms known to us and two Canadian-based firms for interviews and invited all to come to Salem for detailed interviews if they were interested in the work. All the firms selected called for interviews and all requested that they be permitted to submit an offer for the work.

In the interviews the general and detailed nature of the work, our requirements, the fabricating plant capabilities, and all other facets of the work are discussed in all detail. If the firm is still interested, they are handed a set of the job plans, specifications, and forms of agreement covering the inspection we require and advised that their offer would be considered.

One Canadian firm and the three domestic firms submitted offers. One Canadian firm did not submit an offer because of lack of available manpower.

In analyzing the consultants' offers, particular stress was laid on manning levels proposed, the nature of the work and all its many complexities, the possibility of an overrun in time of fabrication over the fabricators' very optimistic schedule, and the possibility of a part of the work being subcontracted out to other fabrication plants, the location of the office of the firm with which we would be dealing, knowledge of the firms' capabilities to do the work to specification requirements, and lastly, the fairness of the firms' offer.

Pittsburgh Testing Laboratory was selected for the West Fremont work even though they did not submit the lowest offer for the work.

The ball continued to roll when the second contract for the main span superstructure for the Fremont project went to Murphy Pacific Enterprises of Emeryville, California, with fabrication of steel in two of their plants in the San Francisco Bay area; two plants of the U. S. Steel Co., one in the San Francisco Bay area and one in the Chicago area; suspender strand and appurtenances fabricated at Trenton, New Jersey; and castings and forgings by National Forge at Erie, Pennsylvania.

Under these conditions we called in three domestic firms for interview and received two firm offers. In this instance Pittsburgh Testing Laboratory made the lowest offer which was accepted.

The ball stopped rolling when the contractor for the East Fremont complex placed his order for structural steel with the same Vancouver, B.C., firm holding the order for West Fremont, with partial fabrication to take place in six different shops at four wide-spread locations in Japan and shipped to Vancouver, B.C., for final fabrication, assembly, and partial painting. We made an investigation into the use of Japan-based inspection agencies to handle the work there for us but could not find any with capabilities we require. Inasmuch as we had commissioned Pittsburgh Testing Laboratory to do the West Fremont work, we requested that they make us an offer for the work in both Japan and Vancouver, B.C. Our principal reason for going to a single agency in this case was that we did not want two separate agencies in a single plant working on the same project. Pittsburgh Testing Laboratory made us an offer that we considered reasonable and they were commissioned to do the work.

I am enclosing a copy of our agreement with Pittsburgh Testing Laboratory for the East Fremont work which is typical for all agreements for work of this kind.

We are paying $13.50 a ton for the West Fremont work in Vancouver, $9.91 a ton for the main span superstructure work in the United States, and the price for work in Japan is shown in the enclosed agreement.

In general, we consider it a distinct advantage, almost a must, to have the work done by firms with local and readily accessible administrators.

If I can furnish you any further information, please do not hesitate to call.

Very truly yours,

Ivan D. Merchant
Bridge Engineer

CAG:DH

cc Lloyd P. Shaw

RECEIVED
MAR 4 1960
FOR FILING

I-405-8(22)
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
March 3, 1960

SUBJECT: Fremont Bridge

To:
Mr. Tom Edwards
Construction Engineer
O F F I C E

On November 30, 1959 a preliminary alignment diagram indicating span arrangements and pier placements for the east approach to the proposed Fremont Bridge was submitted to the Union Pacific Railroad.

Previously a meeting had been held with the Union Pacific Railroad Engineers and the line investigated on the ground. Needless to say many objections will be raised by the Union Pacific Railroad about the line in the present position.

I am attaching a copy of a letter from the Union Pacific Railroad, dated February 24, 1960, and a print of their drawing titled, "Preliminary Location of Fremont Bridge across the Albina Yard," and dated December 31, 1959.

From a structural standpoint, the line indicated by the Railroad across the Albina Yards and extending into the Fremont Interchange would be a considerably less expensive line to build than the proposed line because of the shorter spans involved. The actual construction would also be much simpler as there would be considerably less interference with various tracks.

I am passing this letter and print along to you so that it can be studied in the light of the overall projects in this area.

Ivan D. Merchant
Bridge Engineer

IDM/mm
Attached

cc: Mr. G. S. Paxson

NOTED
C. S. PAXSON

RECEIVED
MAR 2 - 1970
FOR FILING

I-405-8(32)364
7310

February 27, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Box 300
Salem, Oregon 97308

Re: East Fremont Interchange
Contracts No. 7310, 7311, 7312

Dear Sir:

A point of minor conflict has arisen on the Fremont Bridge project, having to do with flagmen. The Department's policy over past years has been to allow only the laborer rate for flagmen regardless of the actual wage being paid by the contractor to the men actually engaged in flagging. This policy was necessarily adopted to prevent contractors from employing flagmen at inflated rates over long periods of time.

The Fremont Bridge project is one where a considerable amount of flagging (short-term flagging) is required for moving machinery or beams or pile drivers across city streets which remain open. The contractor has taken the position that the need is adequately and most economically served by having some of the crew involved in a specific item of work doing this incidental flagging.

For instance, in moving a pile driver across the street, pile bucks who are on the job and being paid are used to do the flagging. This is a most economical approach. The contractor feels that in following this type of operation he saves the State money. His point is well taken.

In order to resolve this minor conflict, it is necessary for us to have a statement from the Bureau as to your willingness to participate to the full statutory

limit in case the State elects to allow the contractor just compensation for using personnel paid at a higher rate than that of laborer for this incidental flagging.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

TE:ja

bc Forrest Cooper
R. L. Porter
F. B. Klaboe (enc.)
Victor D. Wolfe
Ivan Merchant
A. E. Johnson
F. D. Morgan (enc.)
L. H. Young (enc.)

FORM E-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
February 11, 1970

SUBJECT: East Fremont Interchange
Contracts No. 7310, 7311, 7312
Payment for Flagging

To: Mr. Ivan D. Merchant
Bridge Engineer
State Highway Building
Salem

A dispute has arisen on the subject project with the Contractor regarding wage rates to be allowed for flagging labor. Our instructions have been to allow only the laborer rate for flagmen regardless of the wage rate of the individual performing the flagging. When this question first arose, I discussed same with John Bond, F. D. Morgan's Staff Assistant, who told me this question had already been answered and who sent a copy of a letter by F. B. Klaboe dated May 22, 1968 which was written to clarify the Department's policy on this matter (copy attached). Also attached are copies of letters from Robert Shotwell (1-21-70) and the Contractor (2-2-70) relating to this subject.

The Contractor's point is that in the instance where a flagman is needed for a short period of time, for example, as required to move a pile-driving rig across the freeway, it is not practical to fetch a laborer from another part of the project to act as a flagman. Rather than have the State pay the cost of bringing the man to the flagging area, he feels that it would be more economical to allow the higher rate for the workman on the scene. In the case of Sunday work (cited in his 2-2-70 letter) where there were no laborers on the project, the economies are obvious.

I realize that a policy-type decision regarding this question has already been made; however, since the Contractor has seen fit to not drop the issue, it is being referred to your office for consideration. Perhaps the points raised in his letter are different than those which led to the earlier decision. For what it's worth, I can find no reference in any applicable specification which states that only the laborer rate will be allowed for flagging and I believe the Contractor has made a valid point. } True

Your consideration of this matter is requested. If further information is desired, please advise.

RECEIVED
FEB 13 1970
BRIDGE DIVISION

A. E. Johnson
Metropolitan Engineer

By: Edward L. Hardt
Edward L. Hardt
Assistant Metropolitan Engineer

4-8
7-10
Flagman is Laborer 5.25 hr
Pile buts 6.00 hr

EXCESS PAY NOTED

EIH:pb
cc: Robert Shotwell

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97206

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

RECEIVED
FEB 3 1970
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

February 2, 1970

TO: OREGON STATE HIGHWAY DEPARTMENT - METRO ENGR.
1101 N. RUSSELL STREET
PORTLAND, OREGON 97227

ATTN: ROBERT E. SHOTWELL, RESIDENT BRIDGE ENGINEER

RE: E. FREMONT INTERCHANGE
O.S.H.D. CONTRACTS NO'S. 7310, 7311 & 7312

Gentlemen:

Please be advised that Drake - Willamette, Joint Ventures, wishes to have further consideration given to labor rates rejected against E.W.O. No. 1 (flagging) by your letter of January 21, 1970, with the following information offered as supporting data for such reconsideration.

Our earliest verbal notice of this problem came to light on approximately January 6, 1970, by which time, Drake - Willamette, Joint Ventures had used piledrivers, operators, oilers, and laborers at various times as flagmen. Part of this flagging was done on a Sunday for a short period of time when the major Pacific Power & Light line above the east side of Interstate Avenue near the southeast footing of Pier WE-9 was deactivated to permit access to this work area. Pacific Power & Light Company can only deactivate this major power line during this off-peak power load interval. Quite obviously, the O.S.H.D. would not have wanted Drake - Willamette to call out general laborers to standby during this time as the cost would have involved a minimum of 4 hr. at double-pay rate. As it happened, piledrivers were used at considerable savings to the O.S.H.D.

Regarding three other circumstances where labor crafts, other than general laborers were used as flagmen, the following points must be considered:

1) The East Fremont Interchange is a large project on which various crews are working in most cases, at considerable distance from each other not making general laborers readily available at all times.

2) To request a foreman to go to some other area on the project to obtain general laborers to serve as flagmen, would involve additional time of the foremen and usually use of a vehicle as transportation which would only further increase flagging costs to the state - during which time, available labor is standing by doing nothing.

RECEIVED
FEB 13 1970
BRIDGE DIVISION

3) Because of existing labor union agreement stipulatious, the various crafts must be paid all day at the highest rate at which they work during any portion of the work day.

Referring to Mr. Klaboe's letter, included with your aforementioned letter of January 21, 1970, may we call your attention to Section 9-8 (a) - (1) of the O.S.H.D. regarding "actual wages paid to laborers and foremen ---," etc. It is Drake - Willamette's contention that this section means that the contractor will be paid at the minimum rate for a specific labor craft for any work done by that craft which was our basis in billing for the flagmen up to this date. The only apparent stipulation regarding selection of flagmen appears to rest in Section 7-30- (b) & (c) of the aforementioned specifications and we will attempt to comply from this date in using general laborers as flagmen.

While Drake - Willamette, Joint Ventures does not wish to be arbitrary regarding this problem, it appears to be much more complex than is apparent at first glance. Therefore, it is requested that further consideration be given to the existing billings, and that clarification be given to future circumstances.

Very truly yours,

WILLIAM A. BUGGE
Project Manager

WAB/alb

RECEIVED
FEB 13 1970
BRIDGE DIVISION

Portland, Oregon 97227
January 21, 1970

RE: Flagmen & Extra Work
East Fremont Interchange
Units A, B, C
Contracts No's. 7310, 7311, 7312
Bridge No's. 8958-1, -2, -3
Prefix No's. 626-1017, -1018, -1022
F.A.P. No's. I-405-3(24)304
I-405-3(23)304
I-405-3(22)304

Drake-Willamette, Joint Venturers
1201 North Loring Street
Portland, Oregon 97227

Attention: William Bugge

To clarify our previous discussions as to flagmen's pay on Extra Work I have enclosed a decision by F.B. Klaboe, Assistant State Highway Engineer. The letter is a reponse from an inquiry from Coral Corp. regarding using trades other than Laborers as flagmen. I believe our situation of using pile bucks as flagmen and only paying Laborers wages closely parallels this.

I therefore must correct your EWO billing to reflect this policy.

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

RES:rsr
CC: A.E. Johnson
Files.

RECEIVED
FEB 13 1970
BRIDGE DIVISION

METROPOLITAN ENGINEER
RECEIVED
JAN 22 1970

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MCMINNVILLE
DAVID D. SIMPSON, MEMBER
PORTLAND
REED W. HILL, MEMBER
HELIX

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

May 22, 1968

Routing

Morgan
Ducker
Bond
Barbee
Walker
Glenn
Swan

Peate
Murdock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
MAY 23 1968
CONSTRUCTION
DIVISION

Mr. J. B. Irving
President
Coral Corporation
Post Office Box 258
Gladstone, Oregon 97027

Dear Mr. Irving:

In your letter of May 8 you inquired as to our interpretation of Section 7-30(c)3 of our Standard Specifications which relates to the furnishing of flagment and pilot car operators.

Our practice has been to make the 50 percent reimbursement in accordance with the actual work that is being done. Where flagmen are involved, this would normally be at the laborer's rate. This practice would not seem to be in conflict with the provisions of 7-30 nor with Section 9-3.

We believe it is in the State's best interest to stay with this interpretation. There may be occasions when this, to some degree, is unfavorable to the contractor, but it would be very difficult to consistently and fairly apply any other interpretation.

Very truly yours,

Forrest Cooper
State Highway Engineer

By ORIGINAL SIGNED BY.
F. B. KLABOE

F. B. Klaboe
Assistant State Highway Engineer

RECEIVED
FEB 13 1970
BRIDGE DIVISION

cc: Forrest Cooper
R. L. Porter
Victor D. Wolfe
F. D. Morgan
L. H. Young

METROPOLITAN ENGINEER
RECEIVED
JAN 16 1970
ME AME AME MOE MCE MTL

RECEIVED
FEB 17 1970
FOR FILING

I-405-8(22)304
7310

February 16, 1970

Oregon State Highway Commission

Gentlemen:

Bidding specifications for Units A, B, and C of the East Fremont Interchange complex called for separate contracts for each of the units. Such a procedure was necessary for the orderly conduct of the work if three separate contractors had been successful bidders. However, one firm (Hrake-Willamette, Joint Ventures) tendered the low offer on the three units (contracts 7310, 7311, 7312).

The language of the three contracts concerning administrative procedures in connection with contractor's payrolls and other reports is identical. With award of all three contracts to a single bidder, this causes needless repetitive work on the part of both the contractor and the State. Efficient interplay of machines and manpower between the contracts prohibits meaningful separation of equipment, time and labor costs.

We have a supplemental agreement between the State and the contractor modifying certain specifications dealing with administrative procedures that will simplify supervision of the contract.

I recommend that you approve the supplemental agreement and authorize the Secretary to execute it for and on your behalf.

This matter will be on the agenda for your consideration at the March 17 meeting.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Quary
R. L. Porter
Tom Edwards
V. D. Wolfe
Ivan Marchant
F. D. Morgan
L. H. Young
A. E. Johnson

CAG:dh/TE:sr sr

Form FHWA-1027 (12-67)

UNITED STATES GOVERNMENT

Memorandum

FEB 16 1970

FOR FILING

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: February 10, 1970

In reply refer to: 08-35-DA

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : 7310
R. E. Simpson, Division Engineer
Salem, Oregon

Edwards

SUBJECT: East Fremont, Unit A Cont. 7310 FAP I-405-8(22)304
East Fremont, Unit B Cont. 7311 FAP I-405-8(23)304
East Fremont, Unit C Cont. 7312 FAP I-405-8(24)304

The proposed supplemental agreement forwarded with Mr. Merchant's February 4 letter is satisfactory as to form. Please furnish us with the regular number of copies for our approval after the agreement is executed.

Copy - Merchant 2-16-70

NOTED
TOM EDWARDS

RECEIVED
FEB 11 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JAN 27 1970
FOR FILE

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)304
1-2-10

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

January 26, 1970

Union Pacific Railway Company
1416 Dodge Street
Omaha, Nebraska 68102

Attention: Mr. A. H. Smith

Re: File G-13-0
Your bill #224523
State Contract 7310

Gentlemen:

In reply to your letter of January 21, 1970, we wish to advise that your invoice #224523 was first received in this office about December 7, 1969. It was then sent to our railroad liaison engineer for approval. It was returned and on December 16, 1969 was sent to our construction engineer for approval, being returned to this office about January 2, 1970.

It was processed by this office for payment on January 7, 1970, the voucher was written January 12, 1970, and the check was mailed January 14, 1970, which should have put it in your office a week before your letter was written.

If you still have no record of receiving it, please advise us.

Very truly yours,

V. E. Skoog
Controller

By:

Jess Jones
Utility Auditor

cc: Ted Litchfield
Bob Shotwell
A. E. Johnson
General Files

JJ:ms

RECEIVED
FEB 6 - 1970
FOR FILING

I-405-8(22)504
7310

12-23-69 meeting
NOA

January 20, 1970

Pttsburgh Testing Laboratory
611 S. E. Harrison Street
Portland, Oregon 97202

MISC. CONTRACTS & AGREEMENTS No. 3869

Gentlemen:

Attached for your records is a fully executed copy of an agreement for shop inspection of structural steel for the East Fremont Interchange.

We have retained a fully executed copy of this agreement for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

fkm
Attachment

cc Ivan Merchant
Attn: C. A. Gardner
(8 xerox copies of agreement attached)

Form F-2-12M

RECEIVED
FEB 4 1970
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Contingent upon modification of project agreement if additional funds are required

BY _____ Dist. Engineer

DATE 3 FEB 1970

Project Name East Fremont Interchange Unit A — Date January 19 70

Highway Stadium Freeway — U.S. BUREAU OF PUBLIC ROADS 7310.

County Multnomah — Contract No.

Contractor Willamette River Construction Co. Drake-Williamette, Joint Venturers — Prefix 626-1017

Address 1201 North Loring Street, Portland, Oregon 97227 — F. A. Project No. I-405-8(22)304

Order No. 4

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Relocate footing & column steel. Move in and move out pile driver. Move in and move out excavator. Remove part of existing footing forms & replace.

1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

"SW" 314 + 55. Pier "SW" - "WS" 4.

Estimate of quantities and cost:

Equipment	$1,849.00
Material	120.00
Labor	3,805.00
Relocate footing Pier SW-WS 4	$5,774.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

An error in contract plans sheet 29, caused piling to be driven 3'-4" out of place. Prior approval has been received from BPR. Note Please see reverse side for additional work connected with this order.

(over)

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will return one copy to the contractor, one to the district engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$ 13,928,732.75	
Present estimate of project cost, including $5,774.00 for work under this order	$ 13,976,305.75	
Expected ~~construction~~ over-run amount	$ 47,573.00	
Expected ~~construction~~ over-run per cent	0.3	

Submitted by: _____ Resident Engineer

Approval Recommended: _____ Division Engineer

Approval Recommended: _____ Construction Engineer or Bridge Engineer

Approved: _____ Deputy State Highway Engineer or Assistant State Highway Engineer or State Engineer

2-4-70

Additional items of work to be handled on Unit contract Prices.

Item				
21	Structural Excavation	18.5 C.Y.	@ $3.50	$65.00
23	Furnish 14BP73 Steel Piles	120 ft.	@ $5.70	684.00
24	Drive 14BP73 Steel Piles	2	@ $117.00	234.00
31	Class "A" Concrete	14 C.Y.	@ $78.33	1,096.62
32	Reinforcemnnt	436	@ 0.113	49.27

RECEIVED
JUN 22 1970
BRIDGE DIVISION

Form FHWA-121 (12-67)

RECEIVED
JAN 2 2 1970

UNITED STATES GOVERNMENT

Memorandum

FOR FILING

I-405-8(22)304

7310

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: January 16, 1970

In reply refer to: 08-35-EC

Edwards

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange
6152 Consultant Agreement for Shop Inspection of Steel Fabrication

This is to confirm our December 22 verbal approval of the proposed consultant agreement with the Pittsburgh Testing Laboratory for the inspection of the structural steel fabrication for the subject project at Canron Limited, Vancouver, B. C. Canada and several steel plants in Japan.

Authorization is also granted effective that date to proceed with the work covered by this agreement.

Please furnish the customary sets of executed agreements when available.

RECEIVED
JAN 22 1970
BRIDGE DIVISION

NOTED
TOM EDWARDS

RECEIVED
JAN 20 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: January 15, 1970

In reply refer to: 08-35.1

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects -
I-405-8(22)304, East Fremont, Unit A
I-405-8(23)304, " Unit B
I-405-8(24)304, " Unit C

Edwards

Mr. Edwards' letter of January 12 suggested that the internal time limitation in connection with the subject projects be waived and the overall completion dates for Units A and C be extended without assessment of liquidated damages.

This office has no objection to the Commission approving a change in the time; however, it cannot agree with the suggestion that a change in a contract provision can be made without an adjustment of the contract in accordance with the terms of the contract. Therefore the change in time must be covered by a change order or supplemental agreement as provided in the contract.

RECEIVED
JAN 20 1970
BRIDGE DIVISION

RECEIVED
FEB 18 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JAN 16 [illegible]
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Form 6216-SK

RECEIVED
JAN 7 1970
OFFICE OF
STATE HIGHWAY ENGINEER

STATE COPY

OREGON STATE HIGHWAY DEPARTMENT

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

Contingent upon [illegible] ject agreement if [illegible] funds are required

BY [signature]

TITLE Dist. Engineer

DATE 6 FEB 1970

U.S. BUREAU OF PUBLIC ROADS

Project Name East Fremont Interchange Unit A Date January 14, 1970

Highway Stadium Freeway Contract No. 7310

County Multnomah Prefix 626-1017

Contractor (Willamette River Constructors) Drake-Willamette, Joint Venturers F. A. Project No. I-405-8(22)304

Address 1201 N. Loring Street, Portland, Oregon 97227 Order No. 3

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Furnish at job site 19 - 14 WF 117# pile 50' long.
1.Maximum equipment rental rates allowable as per A.G.C. Agreement.
2.Percentage allowed contractor is in accordance with the executed contract.

Location by station numbers:

Pier EW 8 Sta. EW 332+72.

Estimate of quantities and cost:

Furnish at job site 14 W F 117# pile

Material	$8,725.00
Labor	100.00
Equipment	184.00
Total	$9,009.00

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Piling furnished to supplement the steel piling allocated to footings in contract specifications. Thorough search was made for other available sources of 102# & 117# pile. The source purchased from was only available piling. These additional pile are mentioned as "Extra Work" in contract specification. Approval received from BPR Jan. 7, 1970. Work has not been performed.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

		Space to right of this line is for use of Salem Office
Project authorization	$13,928,732.75	
Present estimate of project cost, including $9,009.00 for work under this order	$13,970,531.75	
Expected under-run amount	$41,799.00	
Expected under-run per cent	0.3	

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Assistant Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer or Salem Office Engineer.

1-14-70

SP 22577-734

RECEIVED
JAN 12 1970
FOR FILING

I-405-8(22)-304
7310

January 12, 1970

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Box 300
Salem, Oregon 97308

Dear Sir:

E. Fremont Unit A	Contract 7310	FAP I-405-8(22)304
E. Fremont Unit B	Contract 7311	FAP I-405-8(23)304
E. Fremont Unit C	Contract 7312	FAP I-405-8(24)304

Reference is made to our conference of November 21, 1969 and our letter of December 1, 1969, wherein the administration of these three contracts with a single contractor was discussed in considerable detail.

The matter of internal time limits for work at or near the junction points of the three contracts was discussed in detail and it was generally agreed that under the conditions, the internal time limits were meaningless and could be waived. It was our original intention to take care of this item by a supplemental agreement to the contracts. It was later deemed advisable to handle the matter as a routine time extension.

With your concurrence, I propose to recommend to the Highway Commission that the intermediate time limit of 510 calendar days stated in Contract No. 7310, Unit A, of 510 calendar days be raised to 755 calendar days (the overall completion date for the unit) without assessment of liquidated damages and the intermediate time limit of 330 calendar days stated in Contract No. 7312, Unit C, of 330 calendar days be raised to 660 calendar days (the overall completion date for the unit) without assessment of liquidated damages.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

bc Forrest Cooper
R. L. Porter
Victor D. Wolfe
Ivan Merchant
L. H. Young

CAG:dh ja

STATE COPY

Monthly transaction number: 1-29	FHWA PR-2A (Rev. 10-68) U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION BUREAU OF PUBLIC ROADS	State: Oregon
Project report number: 13	**MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT** (PPM 21-7) 1-13-70	County: Multnomah
Modification number: 1		Project number: I-405-8(22)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 25, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 13,276,714	$ 13,963,959
Federal funds	$ 12,247,700.00	$ 12,871,800.00
Other revisions		

This modification is made for the following reasons:

Based on revised project agreement estimate.

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 12th day of January, 1970.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By J. M. Klabon

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

By L. L. Simpson
(Division Engineer)

For: R. L. Simpson

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(22)304

E. FREMO[illegible] INTERCHANGE SECTIO[illegible]NIT "A") OF THE

STADA[illegible]M FREEWAY IN MUL[illegible]NAH COUNTY

Revised Project Agreement Est.

Salem, Oregon, December 26, 1969

Type Code X971
Structure (No. 8958-1)(Sta. "EW" 332+57 to Sta. "FB"3 346+20.5)(Contract No. 7310)

Roadwork

Temporary Protection and Direction of Traffic	All Required		$	9,398.00
Clearing and Grubbing	All Required			274,268.00
General Excavation, Unclassified	All Required			1,681.00
Trench Excavation	1,860 cu.yd.	6.00		11,160.00
Pavement Replacement	160 lin.ft.	10.00		1,600.00
Stone Base	190 cu.yd.	5.50		1,045.00
Plant Mixed Bituminous Base	340 ton	10.80		3,672.00
Class "B" Asphalt Concrete	170 ton	10.80		1,836.00
8-inch Storm Sewer Pipe	660 lin.ft.	3.00		1,980.00
12-inch Storm Sewer Pipe	700 lin.ft.	5.00		3,500.00
21-inch Storm Sewer Pipe	340 lin.ft.	10.00		3,400.00
12-inch Sanitary Sewer Pipe	460 lin.ft.	6.00		2,760.00
24-inch Sanitary Sewer Pipe	160 lin.ft.	11.00		1,760.00
Extra for Pipe under Interstate Ave.	All Required			7,500.00
Concrete Manholes	10 only	600.00		6,000.00
Step Manholes	1 only	3,000.00		3,000.00
Concrete Inlets, Type "B"	15 only	200.00		3,000.00
Concrete Curbs	13 cu.yd.	87.00		1,131.00
Concrete Walks	44 sq.yd.	9.00		396.00

Structures

Shoring, Cribbing, etc.	All Required		269,507.00
Structural Excavation	8,000 cu.yd.	3.50	28,000.00
Structural Excavation Below Elevation Shown	700 cu.yd.	3.50	2,450.00
Furnish 14 BP 73 Steel Piling	24,770 lin.ft.	5.70	141,189.00
Drive 14 BP 73 Steel Piles	421 only	117.00	49,257.00
Drive 14 BP 102 Steel Piles	213 only	121.00	25,773.00
Drive 14 BP 117 Steel Piles	63 only	121.00	7,623.00
Splice 14 BP 73 Steel Piles	175 only	35.00	6,125.00
Splice 14 BP 102 Steel Piles	280 only	35.00	9,800.00
Splice 14 BP 117 Steel Piles	70 only	35.00	2,450.00
Drilling Pile Holes	130 lin.ft.	10.00	1,300.00

Class "A" Concrete (19,817 c.y.)	All Required		$ 1,511,403.00
Reinforcement (4,388,500 lb.)	All Required		505,975.00
Structural Steel (16,156,000 lb.)	All Required		10,652,642.00
Gore Point Protection	All Required		6,140.00
Metal Parapet Railing	8,598 lin.ft.	7.50	64,485.00
8-inch PVC Pipe	3,200 lin.ft.	8.50	27,200.00
Dry Fire Mains	All Required		10,981.00
Sign Supports for Signs 16, 17 & 18	All Required		8,400.00
Sign Supports for Signs 19, 20 & 35	All Required		7,660.00
Sign Supports for Signs 31, 32, 33, & 34	All Required		4,070.00
Sign Supports on Bridge Railing	All Required		1,500.00
Sign Supports on Parapet Blister	All Required		1,150.00
Sign Illumination Equipment	All Required		5,270.00
Type "A" Signs in Place	1,030 sq.ft.	10.00	10,300.00
Type "D" Signs in Place	124 sq.ft.	6.00	744.00
Type "M" Signs in Place	63 sq.ft.	6.00	378.00
Illumination Installation Complete	All Required		44,510.00
			$13,745,369.00
Lump Sum Reduction	All Required		(750,382.02)
			$12,994,986.98
Flagging (60% of contractor's cost)	All Required		10,000.00
Railroad Protective Cost	All Required		40,000.00
State Furnished 14 BP 102 Steel Piling	9,175 lin.ft.	7.00	64,225.00
State Furnished 14 BP 117 Steel Piling	3,818.4 lin.ft.	11.55	44,102.52
Work by UPRR	All Required		13,660.00
City of Portland (water)	All Required		38,766.63
			$ 210,754.15
	Subtotal		$13,205,741.13
	Engineering		626,134.87
	Total		$13,831,876.00

Length of Structure - - 0.258 mile

Type Code Y040
Building Clearance (Sta. 341+00)(Contract No. 7298)
Yardman Locker Building

New Yardmen's Locker Building (Alternate "B")	All Required		$ 105,352.00
Demolish and Remove Existing Building	All Required		5,409.00
Extra Concrete	2 cu.yd.	80.00	160.00

Club House Building

Relocate Club House Building	All Required	16,251.00
		$ 127,172.00
Railroad Share of Building Costs		(7,196.00)
		$ 119,976.00
Flagging (60% of Contractor's Costs)	All Required	100.00
		$ 120,076.00
	10% Engr. & Cont.	12,007.00
	Total	$ 132,083.00

Summary of Funds

Description	Total Cost	Federal Funds	State Funds
Structure	$13,831,876.00	$12,750,000.00	$1,081,876.00
Building Clearance	132,083.00	121,800.00	10,283.00
Totals	$13,963,959.00	$12,871,800.00	$1,092,159.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1 - 100%
Prefix 626-1017
Group 1 - 100%
Prefix 626-1023

E. Fremont Interchange Section Unit "A"

Project I-405-8(22)304

Railroad Protective Cost*

Union Pacific Railroad

Engineer-Inspector for 27 months
Full Flagging Crew for 3 months

Wages			
Engineer-Inspector	27 mos.	$849.00	$22,923.00
Section Foreman	22 days x 8 hrs. x 3 mos. x $3.566/hr.		1,882.85
Section Laborers (2)	2 x 22 days x 8 hrs. x 3 mos. x $2.889/hr.		3,050.78
34% Payroll additives			9,471.25
			$37,327.89
State will pay up to			$40,000.00

*Note: This estimate covers all protective costs for Units "A" and "B" ($37,000 for Unit "A") ($3,000 for Unit "B").

Work by U.P.R.R.	
Remove Linde Air Spur Track, ED-194, 445'	$ 645.
Install Rails & Cross Ties Displacing Frog & Sw. Ties	590.
Relay Rail, Track ED-79 59 T.F. 131/90#	680.
Rehabilitate Track through Crossing	760.
Reroute Communication Line to Clubhouse at New Location	175.
Reroute Communication Lines to New Boardroom	1,240.
Relocate U.G. Comm. Lines to Clear Bridge Piers	3,165.
Provide Electrical Service to New Boardroom	795.
Provide Electrical Service to Relocated Clubhouse	2,210.
Make Permanent Relocation of Electric Power Line to Division Office	3,500.
Salvage Credit 59' Relay	(100.)
	$13,660.

City of Portland (Water Facilities)	
Labor	$17,309.75
Material and Paving	16,588.51
Equipment	2,163.72
Overhead	2,704.65
Total Estimated Cost	$38,766.63

Form FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

I-405-8(22)304
7310

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
Attention: Mr. I. D. Merchant

DATE: January 7, 1970

In reply refer to: 08-35.6

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange

We refer to Mr. Merchant's December 26, 1969 letter regarding the employment of Mr. David S. Berger by Pittsburg Testing Laboratory. This letter states that the resignation of Mr. Berger and his subsequent employment by Pittsburg Testing Laboratory has been found to be acceptable to the State. We believe this matter requires no further action.

Copy - Merchant info 1-12-70

NOTED
TOM EDWARDS

RECEIVED
JAN 8 1970
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

I-405-8(22) E. Fremont Interch. Sec., of 1969
304 Stadium Frwy. in Portland
#7310 (Unit A) Folder #1

R.R. 0541

RECEIVED
DEC 30 1969
FOR FILING

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

December 26, 1969

I-405-8(22)304
7310

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street NE
Salem, Oregon 97301

Dear Mr. Simpson:

Re: East Fremont Interchange
Contract 7310, FAP No. I-405-8(22)304
Contract 7311, FAP No. I-405-8(23)304

We have completed negotiations with Pittsburgh Testing Laboratory for shop inspection of structural steel for the subject contracts being fabricated in Vancouver, B.C., and Japan, per our letter to you dated December 18, 1969. A formal agreement covering the work has been forwarded to Pittsburgh Testing Laboratory for signature.

Article 18 (pages 7 & 8), "Prohibition Against Hiring Certain Personnel" precludes Pittsburgh Testing Laboratory from hiring and using State personnel on the work covered by the agreement "*** without the prior written consent of State,***".

Prior to completing the negotiations for this contract, one of our employees, David S. Berger, contacted Pittsburgh Testing Laboratory and expressed a desire to work with them on fabrication inspection to be done under the agreement in Japan. The matter of Mr. Berger being employed by Pittsburgh Testing Laboratory under the prevailing conditions has been the matter of several discussions between members of the Department and Pittsburgh Testing Laboratory. The conditions of Mr. Berger's employment are as stated in Pittsburgh Testing Laboratory's letter of December 17, 1969, attached. After careful consideration of all of the factors involved the Department is accepting Mr. Berger's resignation and granting consent to his being employed immediately by Pittsburgh Testing Laboratory to work on the East Fremont project.

NOTED
TOM EDWARDS

This entire matter was discussed with Mr. Simpson and Mr. Schell on December 18, 1969, and at that time they indicated verbal approval of the matter. May I have your written approval of the action.

Very truly yours,

ORIGINAL SIGNED
IVAN D. MERCHANT

Ivan D. Merchant
Bridge Engineer

CAG:jf

cc: Tom Edwards

RECEIVED
DEC 29 1969
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22)304

STATE COPY

Form E-26-6M

OREGON STATE HIGHWAY DEPARTMENT

RECEIVED
JAN 14 1970
OFFICE OF
STATE HIGHWAY ENGINEER

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

APPROVED EFFECTIVE DATE 12/23/69
Contingent upon modification of project agreement if additional funds are required
BY [signature]
TITLE Dist. Engineer
DATE DEC 24 1969
JAN 12 1970
U. S. BUREAU OF PUBLIC ROADS

Project Name East Fremont Interchange Unit A — Date December 24, 1969
Highway Stadium Freeway — Contract No. 7210
County Multnomah — Prefix 626-1017
Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(22)304
Address 1201 N. Loring Street, Portland, Oregon 97227 — Order No. 2

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Furnish on the project granular backfill materials in sewers.
1. Maximum equipment rental rates allowable as per A.G.C. Agreement.
2. Percentage allowed contractor is in accordance with the executed contract.

NOTED
F. B. KLABOE

Location by station numbers:

N.W. 327+00 to approx. N.W. Sta. 333+00.

Estimate of quantities and cost:

Materials 700 Cu.Yds. ~~@ $2.75/C.Y.~~ = ~~$1,925.00~~ $2300.00
~~plus profit~~ ~~375.00~~
~~Total~~ ~~$2,300.00~~

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

Necessary to furnish free draining granular materials in sewer backfilling. Excavated materials from the trench too wet for backfilling. R.R. is also requesting granular backfill as these sewers are under streets & railroads. Necessary to place new sewers to allow footing excavation for the structure. Materials to be free draining granular material and paid by the cubic yard truck measure delivered at the job site.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After approval of the order by the assistant state highway engineer, the Salem office will send one copy to the contractor, one to the division engineer and one to the resident engineer.

Project authorization	$3,928,737.75
Present estimate of project cost, including $ 2,300.00 for work under this order	$3,946,672.75
Expected ~~XXXXXXX~~ over-run amount	$ 17,935.00
Expected ~~XXXXXXX~~ over-run per cent	0.13

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant State Highway Engineer or Engineer of Maintenance

12-31-69

RECEIVED
DEC 29 1969

Form FHWA-21 (12-67)

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
7310 Attention: I. D. Merchant

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: December 22, 1969

In reply refer to: 08-35.6

SUBJECT: Oregon I-405-8(22)303, I-405-8(23)303, I-405-8(24)303
East Fremont Interchange
Units A, B, & C

Your December 16 request to modify the concrete sampling program on this project is approved.

The modified procedure as requested, will require the standard sampling requirements for pours of less than 100 cubic yards. For larger pours, cylinders, slump, and air tests will be made every 4 hours or every 400 cubic yards, whichever is lesser. At least one yield test per pour will be required. Supplemental testing by Kelley Ball and Chace Air Meter will also be performed.

These modifications are similar to those made on other large jobs in the area which have proven satisfactory because of the consistent high quality concrete obtained in the Portland area.

Copy - Merchant
12-24-69

RECEIVED
DEC 24 1969
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
TOM EDWARDS

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
DEC 19 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

December 18, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street NE
Salem, Oregon 97301

Dear Mr. Simpson:

Re: East Fremont Approaches
Unit A, Contract 7310,
FAP I-405-8(22)304
Unit B, Contract 7311,
FAP I-405-8(23)304
Unit C, Contract 7312,
FAP I-405-8(24)304

The contractor advises us that he has placed the order for fabricated structural steel for Units A & B with Canron Limited, Western Bridge Division, Vancouver, B.C., and the order for fabricated structural steel for Unit C with Fought and Company, Portland. Canron advises us that their program for accomplishing the work is to have the major elements of the steel, girders, etc., fabricated in six different plants at four different locations in Japan, with these elements shipped to their Vancouver plant for final fitting up, assembly and cleaning and painting; with Canron doing complete fabrication of some of the minor elements.

Inspection of fabrication of structural steel in the fabrication plant is a specification requirement. Inspection of fabrication of the steel for Unit C will be handled by State personnel presently engaged in similar work in the Portland area. We do not have sufficient personnel qualified to do this type of work to handle the necessary inspection in the plants located in Vancouver and Japan, and hence must engage the services of an outside firm of consultants to perform the work for us.

We are currently negotiating with Pittsburgh Testing Laboratory only to do this work for us. We are dealing with a single agency only because of the many complexities and prevailing conditions. Dealing with a single agency for this work is within the purview of PPM 40-6. Our reasons for dealing with this single agency are:

Copies to Administrative Staff - info.

NOTED
TOM EDWARDS

Cost est. $12,000

Engr. Pontin Staff 12-19-69

1. Pittsburgh is our inspection agency on the West Fremont work in the Canron plant. Canron will be working on East Fremont concurrently with work on West Fremont. The possibility of having two separate agencies doing the same type of work and on the same type of material concurrently would create impossible administrative conditions for us.

2. It is imperative that a single inspection agency be responsible for all work on a particular project. We are not familiar with any of the capabilities of any agencies based in Japan performing this type of work and time does not permit us to make a thorough investigation into their capabilities. Preliminary investigations into these agencies indicate that there were none available capable of performing the quality of work our specifications require.

3. Time for the selection of a consultant is a critical factor. The fabricator plans to start qualification of welders and welding procedures early in January, 1970. We must have inspectors in the plants by January 4, 1970, to preclude possibility of future claims from the contractor for delaying the work.

4. Our experience has been that it is extremely important to have a local representative of the consultant capable of administering all of the facets of the agreement readily available. Pittsburgh Testing Laboratory has such a person in Portland. None of the other consultants with whom we have conferred nor engaged have such a capability.

Prior to presentation of their offer of December 10, 1969, Pittsburgh sent Don Scott, their local representative, to Japan to make an inspection of the plants' equipment and workmen involved, and an analysis of the plant capabilities. His findings were reported to us verbally. They were, in the main, that the plants although predominantly geared for ship construction had and were well equipped to do bridge work; their rate of tonnage production per month was extremely slow as compared to domestic plants; that travel between plants was difficult and tiring; that living conditions and accommodations were satisfactory but expensive (requiring $16.00 to $18.00 per day per diem as against $12.00 domestic) and that communications with his people there would be a sticky problem.

Our analysis of their offer for all of the work both in Japan and Canada of $14.87 per ton is entirely fair and reasonable, as our estimate of cost to accomplish the work in Japan alone, provided we had personnel available, is $15.50 per ton. Their proposal to place men with Chief Inspector qualifications in each of the principal locations meets with our approval as to manning level and qualifications because of the communications problem.

In considering the $14.87 per ton price it is to be remembered that the specifications for the East Fremont require considerable additional work by the inspection agency not required in previous job specifications, i.e., magnetic particle inspection of fillet welding.

We are just advised by letter of December 15, 1969, from Mitsui & Company, Limited, that they propose to start qualification procedures on January 7, 1970. In order to meet this schedule we must advise Pittsburgh of the acceptance of their proposal by at least December 26, 1969.

With your concurrence, I propose to accept Pittsburgh's offer, authorizing them to proceed immediately with the work. The formal agreement will be prepared and forwarded.

Very truly yours,

ORIGINAL SIGNED
IVAN D. MERCHANT
Ivan D. Merchant
Bridge Engineer

CAG:jf
cc: Tom Edwards

Attachments:
Pittsburgh Testing Lab. Letter, 12/10/69 (offer)
Pittsburgh Testing Lab. Letter, 12/16/69 (Supplemental to offer)
Mitsui Shipping Schedules I & II
Canron Revised Schedule
Form of Agreement
Mitsui Letter, 12/15/69

RECEIVED
DEC 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 1 1969

Form 1320-1 (12-67)

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
7310 Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, Oregon 97308

DATE: December 9, 1969

In reply refer to: 08-35.DA-6

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Interchange Section
State Force Order No. 3
Total Estimated Amount of the Order: $500
Federal Participation: $450

Reference is made to Mr. Bond's letter of December 4, 1969, concerning the subject order.

We are approving the use of State Forces as being in the public interest under provision of PPM 21-6.2 for the following reasons:

1. The contractor is neither properly equipped nor staffed to perform the work contemplated under the order.

2. The State has the necessary special striping equipment and trained personnel to perform the work most economically.

Striping to be performed should be in conformity to the requirements of the Manual on Uniform Traffic Control Devices and will thus be eligible for participation under the provisions of Paragraph 6 of PPM 21-15.

NOTED
FEB 1969

Federal participation will be based on the agreed unit price for striping. The estimated total costs of the work to be done under this order is $500.00 with Federal participation of $450.00.

Attachment

orig to Morgan w/enc.
12-11-69

RECEIVED
DEC 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

Form A-108—SM

STATE COPY

OREGON STATE HIGHWAY DEPARTMENT

Order for State Force Work

APPLYING TO CONTRACT PROJECTS

APPROVED EFFECTIVE DATE 11/14/69
Contingent upon modification of project agreement if additional funds are required
BY [signature]
TITLE Dist. Engineer
DATE 9 Ord. DEC 4 1969 5
U.S. BUREAU OF PUBLIC ROADS

Project Name East Fremont Interchange Unit "A" Date November 19, 1969

Highway Stadium Freeway Contract No. 7310 F. A. Project No. I-405-8(22)304

County Multnomah Prefix 626-1017 Account No. 274-03

Description of Work To Be Done:

Stripe North Interstate Ave. for 650 ft. Type 2 Barricade shown on Sheet 3 of the contract drawings.

Location by Station Numbers:

"SW" 315 + 00.

Estimate of Quantities and Costs:

Stripe North Interstate Ave. $500.00

Explanation:

Construction of Pier 4 on the "SW" line and Pier 9 RT. on the "EW" line requires restripping Interstate Ave.

INSTRUCTIONS

Submit a separate order for each piece or kind of state force work to be undertaken. Use the account number applying to that work as indicated in the account numbers assigned to state force work on contract jobs.

Five copies of the order are to be submitted to Salem. After approval by the Assistant State Highway Engineer, one copy will be sent to the Division Engineer and one copy to the Resident Engineer.

Project authorization $13,928,737.75

Present estimate of project cost, including $500.00 for work under this order $13,929,237.75

Expected [redacted] over-run (amount) $500.00

Expected [redacted] over-run (per cent) 0.003%

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approval Recommended: [signature] Assistant Division Engineer

Approved: [signature] Deputy State Highway Engineer, Assistant Construction Engineer or Bridge Engineer.

RECEIVED
DEC 10 1969

FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO 7310 Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: December 9, 1969

In reply refer to: 08-35-DA6

SUBJECT: Oregon Projects I-405-8(22)304, I-405-8(23)304, and I-405-8(24)304
East Fremont Interchange, Units A, B, and C
Change in Contract Administration

This office agrees with the State that the routine administration of each of the subject projects as a separate entity is in some instances, not practical and that it would be to the mutual benefit of both the State and the contractor to combine as many of the duplicating administration details as possible. We therefore, concur with the procedures outlined in Mr. Merchant's November 28 letter to the contractor regarding contract administration on these projects.

NOTED
DUM EDWARDS

RECEIVED
DEC 12 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Copy Merchant 12-12-69

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

12-4-69

DEC 15 1969

FOR FILING I-405-8(22)304

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

LETTER OF APPROVAL AND/OR AUTHORIZATION

7210

TO: MR. FORREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON

Klaboe

PROJECT: I-405-8(22)304

SECTION: EAST FREMONT INTERCHANGE -UNIT A

WORK : ADJUSTMENT OF RAILROAD FACILITIES

COUNTY : MULTNOMAH

FROM: MR. R. E. SIMPSON
DIVISION ENGINEER
SALEM, OREGON

DATE PS&E APPROVED: JULY 16, 1969

DATE AUTHORIZED: DECEMBER 4, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- ○ CONSTRUCTION - ADVERTISE FOR BIDS.
- ○ RIGHT OF WAY.
- (X) OTHER (SPECIFY). REMOVAL OF THE LINDE AIR SPUR TRACK
- ○ UTILITY ADJUSTMENT.
- ○ RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

THE UNION PACIFIC RAILROAD'S OCTOBER 22, 1969 COST ESTIMATE FOR CHANGES, ALTERATIONS OR RELOCATION OF THEIR FACILITIES TO ACCOMMODATE THE SUBJECT PROJECT CONTAINED COSTS FOR THE REMOVAL OF THE LINDE AIR SPUR TRACK. THIS ITEM WAS DEFERRED, PENDING FURTHER STUDY, IN OUR NOVEMBER 3, 1969 AUTHORIZATION TO PROCEED WITH THE RAILRAOD ADJUSTMENT WORK.

BASED ON THE INFORMATION FURNISHED IN MR. LITCHFIELD'S NOVEMBER 28, 1969 LETTER, AUTHORIZATION IS HEREBY GRANTED FOR FEDERAL PARTICIPATION IN THE 192.2 FOOT PORTION NOT LYING IN THE CITY STREETS OR ON PROPERTY NOW OWNED BY THE STATE. THE NET COST FOR THIS WORK IS ESTIMATED AT $644.99 AFTER CREDIT FOR THE SALVAGE VALUE OF THE MATERIALS REMOVED.

NOTED
F.B. KLABOE

12-9-69

OFFICE USE
orig to Young
copy to Litchfield

RECEIVED
DEC 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
12-4-69	FOR R. E. SIMPSON	DIVISION ENGINEER

RECEIVED
DEC 4 - 1969
FOR

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)304
HIGHWAY BUILDING 1310 • SALEM, OREGON • 97310 • Phone 364-2171

December 1, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Dear Mr. Simpson:

East Fremont, Unit A Cont. 7310 FAP I-405-8(22)304
East Fremont, Unit B Cont. 7311 FAP I-405-8(23)304
East Fremont, Unit C Cont. 7312 FAP I-405-8(24)304

All three contracts were awarded to one contractor, Drake-Willamette Joint Venture. Routine administration of each contract as a separate entity in some instances is not practical. Because of this the contractor has requested certain concessions in the contract specifications and overall project administration. A copy of his request of October 30, 1969, is attached.

In line with our conference of November 21, we are granting certain concessions to the contractor. These are outlined in our letter of November 28, 1969 (copy attached). With your concurrence we will proceed in the manner outlined in this letter. It is mutually advantageous to both the State and the Contractor to combine as many of the duplicating details as possible.

In addition to the items listed in the Contractor's letter request, we will try to simplify all Department and Inter-department reports insofar as possible. A copy of our procedures to accomplish this is attached for your information.

Very truly yours,

Ivan D. Merchant
Bridge Engineer

CAG:DH
Attachments

cc Tom Edwards
A. E. Johnson
F. D. Morgan (2)
G. E. Rohde
V. E. Skoog
Laboratory
Robert Shotwell

NOTED
TOM EDWARDS

RECEIVED
DEC 1 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DRAKE - WILLAMETTE JOINT VENTURES
1201 North Loring
Portland, Oregon 97227

October 30, 1969

State of Oregon Highway Department
1101 North Russell
Portland, Oregon

Attention: Mr. Robert Shotwell, Resident Bridge Engineer

Reference: State Contracts No. 7310, 7311, 7312

Gentlemen:

Reference is made to our discussion of Friday, October 17, 1969, between Messrs. Phillip Beiser, Robert Bershers, Jack Gray and William Bugge, and your Edward Hardt and Robert Shotwell, concerning the administration of the three referenced contracts.

(1) At the time we offered a bid to the State for this project, we deducted a large sum of money for combining units A, B and C into one job. This was due to economies that could be affected by using a single overhead, single job administration and continuous plan of operation for the project. Generally speaking, all subcontractors and suppliers offered a similar type of credit, as it is much less expensive for subcontractors to pursue the job as a single contract, rather than three. At the time of bidding, we had no way of conceiving that the State would want each individual job operated separately. Had this been the case, the price would have gone up. We feel that the large credit offered was for the State's advantage and, furthermore, would like to point out that the splitting of contracts, insofar as change orders are affected, would add considerable cost to the State in the future. Ourselves, as well as our subcontractors, knowing that these changes would have to be split and administered three ways, would, of necessity, have to include a great deal of added cost. For the reasons stated above, we feel it is in the State's interest to allow us to administer and run the jobs as a single contract.

We also at this time would like to request that the internal time limits of Units A, B and C be waived, as our overall job schedule and procedure, although not firm at this time, could dictate an order of erection contrary to that if the contracts were on an individual basis and held by separate contractors. This approach to single project scheduling will be made for the earliest overall project completion, and we feel that the internal time limit could possibly serve to hinder this. (2)

.....

We are presently organizing to administer and operate the three contracts as a single project and, in order to satisfy the contract documents, feel that the following would be an efficient process for your forces, as well as our own:

1. All payrolls, including our subcontractors, will be submitted as one unit with enough copies for each contract. (The breakdown of payrolls into each contract would be impossible from our standpoint, and certainly would not be accurate, as people will be working on several of the contracts within any particular day.)

2. Single submittals of plans, drawings, samples and testing will be made on items and materials that are common on more than one job.

3. Federal required documents, short form subcontracts, will be submitted as a single document with copies for each contract.

4. In that we are combining almost all of our subcontractors and suppliers into one contract with documents for all three contracts, any requests for inspection tests will be on a one-unit basis.

5. All correspondence will refer to the combination of contracts and be submitted to yourself as the Resident Engineer in charge of the three contracts.

6. We realize that the contracts will have to be kept separate on a pay item basis, and accordingly will keep our records separate as to quantities, change orders, and any items that require individual contract attention.

We would be free at any time for a meeting with representatives of your various departments to go into detail of the above, and would appreciate review or comments on same.

Very truly yours,

DRAKE-WILLAMETTE JOINT VENTURES

William A. Bugge, Jr., Project Manager

WAB/ip

RECEIVED
OCT 31 1969
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

November 28, 1969

Drake-Willamette Joint Venture
1201 N. Loring
Portland, Oregon 97227

Attention: Mr. William A. Bugge, Jr.
Project Manager

Gentlemen:

Re: East Fremont Unit A
Contract 7310, I-405-8(22)304
East Fremont Unit B
Contract 7311, I-405-8(23)304
East Fremont Unit C
Contract 7312, I-405-8(24)304

Your letter of October 30, 1969, to Mr. Robert Shotwell, Resident Bridge Engineer, concerning certain elements of contract administration on the cited project has been referred to this office for answer.

I agree with you that administering each contract as a separate entity in all the many details involved would be a bit difficult and in some instances impractical and extremely expensive and, further, it is to the mutual benefit of you and the State to combine as many of the duplicating details as possible.

Considering each item of your request, I advise as follows:

Internal Time Limits

Under present conditions the intermediate completion dates stated in specifications for Unit A, Contract 7310, and Unit C, Contract 7312, are meaningless and the Department will accept from you and forward to the Commission separate time extension requests for Unit A and C, these requests to raise the intermediate time of 510 calendar days stated in Unit A to 755 calendar days (the overall completion date for the Unit) and the intermediate time of 330 calendar days in

Unit C to 660 calendar days (the overall completion date for the Unit) both without assessment of liquidated damages. These requests to be prepared by you in the Department's usual form accompanied by the consent of surety.

Contractor's Payrolls

One single payroll for all three contracts will be acceptable provided the payroll bears all three Federal-aid project numbers. Time shown on this payroll need not be segregated to each individual contract and duplicate copies for filing in each contract are not needed. Subcontractor's payrolls can be handled in a similar manner.

This will be a matter of a supplemental agreement to be prepared by the Department's legal staff and signed both by the contractor and the Highway Commission.

Submittals of Plans, Etc.

Single submittals of plans, drawings, samples, and listing for materials that are common to one or more units will be acceptable provided the documents are identified as to the unit or units to which they apply.

Federal Documents

1. Subcontracts must be submitted for each individual contract referenced to the contract bid item number on each of the individual contract referenced to the contract bid item number on each of the individual bid schedules.

2. Other required Federal-aid documents, including equal opportunity documents may be handled in the manner outlined for contractor's payrolls.

Inspection Tests

Requests for inspection and tests will be handled in a manner similar to "Submittal of Plans."

Correspondence

The manner outlined in your letter, i.e., combination of contracts is satisfactory.

Estimates and Warrants

Individual monthly estimates for each contract schedule of pay items will be prepared and processed in the usual manner.

In summary, the items of intermediate completion dates and the handling of contractor's payrolls are considered to be changes in the contract requirements to be documented in the manner outlined herein with all of the remaining language of all three contracts to remain in full force and effect. All of the other items listed are strictly a matter of administration of the contract.

If the above procedure is satisfactory to you, please advise.

Yours very truly,

Ivan D. Merchant
Bridge Engineer

CAG:jf

EAST FREMONT APPROACH CONTRACTS

PROCEDURE FOR HANDLING MISCELLANEOUS
ADMINISTRATIVE PROCEDURES

Department Engineering Charges

E. Fremont Unit A - 7310	$12,994,986.98	54%
E. Fremont Unit B - 7311	8,982,856.29	38%
E. Fremont Unit C - 7312	2,007,348.73	8%
	$23,985,192.00	100%

Charge all items of cost to one prefix. Resident Engineer will, each month, clear this prefix by transferring on a pro rata basis to other assigned prefixes. Resident Engineer can use costs shown on the Job Cost Summary by Crew Report furnished the Resident Engineer monthly by the Accounting Division as a basis for this.

Calendar Day Count Report

One report required. Status of each contract to be shown in separate columns of the report.

Price Agreements, Orders for Extra Work and State Force Orders

If applicable to one unit only, prepare in usual manner; if applicable to more than one unit, list all units involved (with FA project numbers) and State pro rata share chargeable to each unit. Estimates to show amounts chargeable to each unit. Supporting data in usual number of copies for a single unit.

Start and Complete Notices, Stop and Resume Work Orders, Division Inspection Reports

Individual reports for each contract.

Weekly Reports

Resident Engineer to work up form to combine all three contracts in a simgle report and submit same for approval. Prior to approval individual reports on each contract are to be submitted.

RECEIVED
DEC 2 - 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

I-405-8(22)304
7310

November 28, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon 97301

Re: Removal of Linde Air Spur Track
East Fremont Interchange Section
Stadium Freeway
Project No. I-405-8 (22) 304

NOTED
F. B. KLABOE

Dear Sir:

Attached you will find two (2) copies of the Union Pacific Railroad Company's estimate for work to be done in accordance with Exhibit "B-1" of their Permit of Entry dated June 13, 1969. Your letter dated November 10, 1969 authorized us to proceed with all items listed on this estimate with the exception of Item 2, the removal of the Linde Air Spur Track, which they estimated to cost $2,020. You withheld authorization for Item 2 pending further study and indicated that this matter would be reconsidered upon receipt of detailed estimates for each segment of the tracks to be removed.

The attached estimate covers the removal of 445 feet of track at an estimated cost of $2,020. The portion of track lying on property now owned by the State is buried under about three (3) feet of fill and will not be removed unless actually inconflict with the excavation for the footings. Any removal of this track will be performed by the contractor. The remainder of the track which can be removed lies in either the public street or on Railroad owned property and measures 295.7 feet in length. Of this length, 103.5 feet, or 35.00%, lie within the city street and 192.2 feet, or 65.00%, lie on Railroad property. The estimate of $2,020 is based on the removal of 445 feet of track. The actual track to be removed is 295.7 feet or 66.45% of the 445 feet. Therefore, 66.45% of $2,020 equals $1,342.29, which is the estimated cost for the removal of the 295.7 feet of track. The Railroad has advised that the salvage value of the materials removed from this portion of the Linde Air spur is $350. This means the net cost of the removal of this 295.7 feet of track equals $1,342.29 minus $350 or $992.29.

Inasmuch as 35% of the track lies within the city streets and 65% lies on Railroad property, the State will agree to bear the net cost of the removal of the portion of the track lying on the city streets, which is estimated to be 35% of $992.29, or $347.30, without Federal participation. We solicit your participation in the remaining 65% of $992.29, or $644.99, which is the net cost of the removal of the track lying on Railroad property.

I should like to point out that Section 3 (b) of the Permit of Entry signed by the State on June 13, 1969 requires the State to "reimburse the Railroad for the entire cost and expense of performing all work referred to in paragraph (a) of this section", which includes the work detailed as Item 4 in Exhibit "B-1", "Remove Linde Air Spur Track." There were no reservations as to the portion which occupied city streets, and the State is committed to reimburse the Railroad for the removal of the entire track. Therefore, we solicit your participation in the removal of the Linde Air Spur Track as detailed above. Your letter of November 10, 1969 indicates that all other items on the attached estimate are participating.

Very truly yours,

F. D. Morgan
Construction Engineer

By: ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Utilities Liaison Engineer

TWL:ss
Enclosure

cc: F. B. Klaboe (with attachment)
V. L. Gallagher (2) "

RECEIVED
DEC 1 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Work to be done by the Railroad in accordance with Section 3(a), right-of-entry agreement dated June 13, 1969; reference Exhibit "B-1":

Item			
1.	Engineering		$14,850.
2.	Remove Linde Air Spur Track, ED-194, 445'		2,020.
3.	Install Rails & Cross ties Displacing Frog & Sw. Ties		590.
4.	Relay Rail, Track ED-79 59 T.F. 131/90#		680.
5.	Rehabilitate Track through Crossing		760.
6.	Reroute Communication Line to Clubhouse at New Location		175.
7.	Reroute Communication Lines to New Boardroom		1,240.
8.	Relocate U.G. Comm. Lines to Clear Bridge Piers		3,165.
9.	Provide Electrical Service to New Boardroom		795.
10.	Provide Electrical Service to Relocated Clubhouse		2,210.
11.	Make Permanent Relocation of Electric Power Line to Division Office		3,500.
12.	Engineering-Inspection		17,175.
13.	Flagging - Contractor or State		Not Estimated
14.	Salvage Credit 59' Relay	$100.	

HOWARD, NEEDLES, TAMMEN & BERGENDOFF | HNTB
CONSULTING ENGINEERS

PARTNERS
JOSEF SORKIN
CARL L. ERB
H. C. LAMBERTON, JR.
JAMES F. FINN
PAUL L. HEINEMAN
JOSEPH H. LOOPER
ROBERT O. ORANGE
DONALD E. HARPER
BERNARD H. ROTTINGHAUS
GERARD F. FOX
WILLIAM H. WACHTER
BROWNING CROW
CHARLES T. HENNIGAN

1805 GRAND AVENUE, KANSAS CITY, MISSOURI 64108
TELEPHONE: CODE 816, BALTIMORE 1-6300
CABLE: HOWARDNEED KANSASCITY

ASSOCIATE
REX M. WHITTON

ADVISORY BOARD
ENOCH R. NEEDLES
RUBEN N. BERGENDOFF
JAMES P. EFUM
ELLIS E. PAUL
THEODORE J. CAMBERN
ELMER K. TIMBY

ERNEST E. HOWARD
1903 - 1953
HENRY C. TAMMEN
1908 - 1961
FRANK E. BLEISTEIN
1946 - 1969

November 17, 1969

Mr. Ivan D. Merchant
Bridge Engineer
Oregon State Highway Dept.
State Highway Building
Salem, Oregon 97310

Re: East Fremont Interchange
Contracts 7310 and 7311

Dear Mr. Merchant:

In reply to your letter of October 31 and the accompanying BPR memo dated October 8, we have the following comments regarding Item 2 of the BPR memo:

1. The girder is to be fabricated to accommodate the super-elevation.

2. The superelevation is indicated on the plans by the opposite-edge profiles or, in some areas, by the contour plans. It can also be determined by interpolation of the pavement elevations if it is so desired.

3. The "warping" is rather gradual and is done by adjusting the individual plates on assembly and prior to welding of the webs to the flanges. Thus any stresses due to this warping are very small.

4. We had checked with several fabricators on this aspect and they did not expect any fabrication problems. Canron also agrees this presents no problem.

We trust this will help clear up this matter. Please let us know if you desire further information.

RECEIVED
OREGON STATE HIGHWAY DEPT.
BRIDGE DIVISION
AM NOV 20 1969 PM
7,8,9,10,11,12,1,2,3,4,5,6

Very truly yours,

HOWARD, NEEDLES, TAMMEN & BERGENDOFF

Jack Kopetz

Jack Kopetz

MJK:mh

RECEIVED
NOV 13 1969

11-10-69

FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

FOR I-405-8(22)304

LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT: I-405-8(22)304

SECTION: EAST FREMONT INTERCHANGE

WORK: ADJUSTMENT OF RAILROAD FACILITIES

COUNTY: MULTNOMAH

TO: MR. FORREST COOPER
STATE HIGHWAY ENGINEER
7310 SALEM, OREGON

FROM: MR. R. E. SIMPSON
DIVISION ENGINEER
SALEM, OREGON

DATE PS&E APPROVED: JULY 16, 1969

DATE AUTHORIZED: NOVEMBER 3, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- ○ CONSTRUCTION - ADVERTISE FOR BIDS.
- ○ RIGHT OF WAY.
- ⊗ OTHER (SPECIFY). ALTERATIONS AND RELOCATION OF UNION PACIFIC'S FACILITIES - RAILROAD.
- ○ UTILITY ADJUSTMENT.
- ○ RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

MR. LITCHFIELD'S OCTOBER 23, 1969 LETTER TRANSMITTED A COPY OF THE UNION PACIFIC RAILROAD'S OCTOBER 22, 1969 COST ESTIMATE FOR CHANGES, ALTERATIONS OR RELOCATION OF THEIR FACILITIES NECESSARY TO ACCOMMODATE THE SUBJECT PROJECT. THIS WORK IS LISTED UNDER EXHIBIT "B-1" OF THE UNION PACIFIC RAILROAD'S "PERMIT OF ENTRY" APPROVED BY THE OREGON STATE HIGHWAY COMMISSION ON JUNE 13, 1969 AS WORK TO BE PERFORMED BY THE RAILROAD.

THIS PROJECT WAS PROGRAMED AND AUTHORIZATION WAS GRANTED TO PROCEED WITH THE NECESSARY PREPARATORY WORK FOR RAILROAD AND UTILITY ADJUSTMENTS EFFECTIVE JULY 3, 1969. FEDERAL PARTICIPATION IN ANY COSTS FOR PREPARATORY WORK INCURRED PRIOR TO THAT DATE MUST BE CLAIMED UNDER PROJECT I-405-8(1)301.

YOU ARE NOW AUTHORIZED TO PROCEED WITH THE ACTUAL ADJUSTMENTS IN ACCORDANCE WITH PPM 30-3 EFFECTIVE NOVEMBER 3, 1969 SUBJECT TO THE FOLLOWING CONDITIONS.

1. AUTHORIZATION FOR THE REMOVAL OF THE LINDE AIR SPUR TRACK IS DEFERRED PENDING FURTHER STUDY. IT APPEARS THAT THE PORTION OF THIS TRACK OCCUPYING THE CITY STREET UNDER A REVOCABLE PERMIT IS NOT ELIGIBLE FOR FEDERAL PARTICIPATION AND THAT THE REMOVAL OF THAT PORTION OF THE TRACK LOCATED ON PROPERTY PURCHASED FROM THE LINDE DIVISION OF THE UNION CARBIDE CORPORATION AND FORMERLY OWNED BY THAT CORPORATION WOULD MORE PROPERLY BE ACCOMPLISHED BY THE CONTRACTOR FOR THE SUBJECT PROJECT AND SHOULD NOT BE INCLUDED IN THIS WORK.

   THIS MATIER WILL BE RECONSIDERED UPON RECEIPT OF DETAILED ESTIMATES FOR EACH SEGMENT AND FURTHER INFORMATION SUPPORTING THE PROPOSAL.

COSTS FOR THE RAILROAD PROTECTIVE SERVICES WERE INCLUDED IN THE PS&E ESTIMATE AND WERE AUTHORIZED EFFECTIVE WITH CONCURRENCE IN AWARD OF CONTRACT AND AS SUCH ARE NOT INCLUDED IN THIS AUTHORIZATION. REIMBURSEMENT ON AN ACTUAL COST BASIS ESTIMATED TO BE $13,015.00 AS SHOWN IN THE ESTIMATE, IS APPROVED.

11-12-69

OFFICE USE
Young
Litchfield
NOTED
F. B. KLABUE

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
11-10-69	For R. E. SIMPSON	DIVISION ENGINEER

RECEIVED
NOV 5 1969

FOR FILING

I 405-1(22)
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 3, 1969

SUBJECT:

To: MEMO TO THE FILES

For information, it appears that the bulk of the steel for the East Fremont Bridge will be fabricated in three different plants -- namely, Mitsui Shipbuilding, Chiba; Matsuo Bridge, Sakai; and the Japan Steel Company, Kyusu.

It will be forwarded through Yawata Iron and Steel in Tokyo to Mitsui and Company, Ltd. in Vancouver, B. C., thence to Canron Ltd., W. B. Division, Vancouver, B. C.

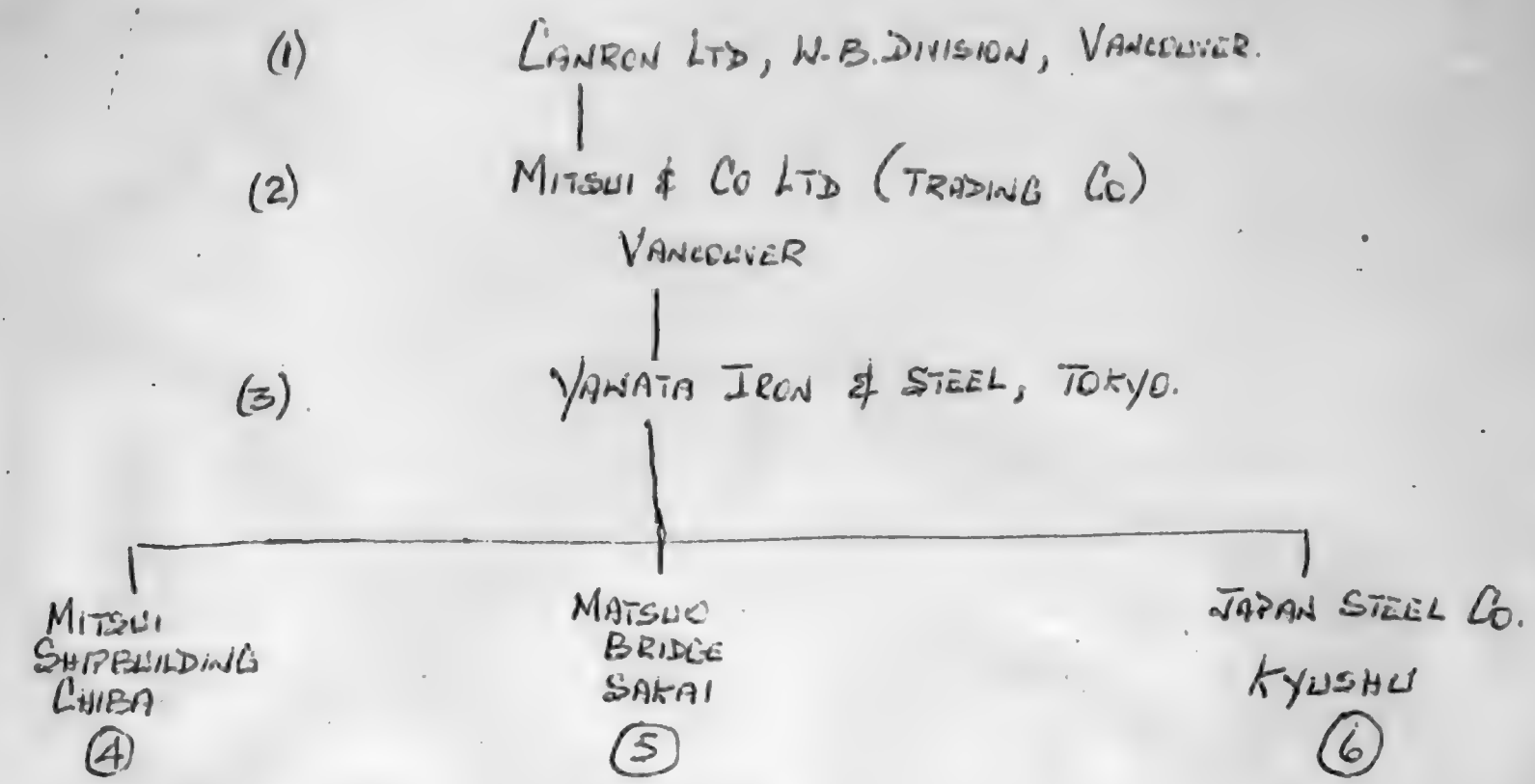
The fabrication in Japan will consist of welding of shapes and girders. Shop punching, shop erection and reaming, cleaning and painting will take place in Canron, Ltd. facilities in Vancouver, B. C., after which the steel will be forwarded to Portland for erection.

Tom Edwards
Assistant State Highway Engineer

TE:ja

cc Forrest Cooper
R. L. Porter
Victor D. Wolfe
Ivan Merchant

EAST FREMONT - STEEL FABRICATION.


(1) LANRON LTD, W.B. DIVISION, VANCOUVER.
(2) MITSUI & CO LTD (TRADING CO) VANCOUVER
(3) YAWATA IRON & STEEL, TOKYO.
MITSUI SHIPBUILDING CHIBA (4)
MATSUO BRIDGE SAKAI (5)
JAPAN STEEL CO. KYUSHU (6)

(1). Floorsystem, cross-girders, splice material, pre-assembly, painting, studs & bolts — 3000 TONS

(2). No physical work.

(3). Design, detailing, steel supply.

(4). Part A Rings — 1650 TONS
30% Part A Girders — 1600 TONS

(5). 70% Part A Girders — 3700 TONS

(6). Part B Girders — 4000 TONS

CONTRACTORS
DEVELOPERS

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209

TELEPHONE (503) 228-3991

October 7, 1969

Oregon State Highway Department
Highway Building
Salem, Oregon 97310

Attention: Ivan D. Merchant, Bridge Engineer

Reference: East Fremont Interchange
Contract Nos. 7310, 7311, & 7312

Gentlemen:

In response to your letter dated September 18, 1969, please be advised that the structural steel for Contracts No. 7310 and 7311 will be purchased from Canron Limited, Western Bridge Division, with offices at 145 West First Ave., Vancouver, B.C., and from Fought & Co., Inc., located at 14255 S. W. 72nd Ave., Portland, Oregon, for Contract No. 7312.

It is Canron's intention to have a major portion of their commitment fabricated by Yawata Iron & Steel in Tokyo, Japan.

It is suggested that you contact Mr. Lawry, of Canron Limited for more specific information and details.

Please be advised also that both commitments listed above will be for furnishing only of fabricated materials, and that the erection will be performed by others.

Please advise if additional information is required.

Very truly yours,

DONALD M. DRAKE COMPANY

R. E. Grant, Manager
Estimating Department

RECEIVED
OREGON STATE HIGHWAY DEPT.
BRIDGE DIVISION
AM OCT 8 1969 PM
7,8,9,10,11,12,1,2,3,4,5,6

REG:br

RECEIVED
OCT 30 1969
FOR FILE

I-405-8(22)304
7310

7911

October 30, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
Box 300
Salem, Oregon 97308

Re: East Fremont Interchange
Stadium Freeway
Multnomah County
Contracts No. 7310 7311
through 7312
Oregon Project I-405-8(22)304
Your File 08-35.6

Dear Sir:

This is in reply to your comments dated October 8 concerning the above subject.

Item No. 1:

The reason for the use of A588 steel in the masonry and shim plates was primarily for strength and prevention of corrosion. The steel plates between the masonry and shim plates as shown on Sheet 6 of the design plans are filler plates shaped to retain the rubber bearing material and is entirely enclosed in rubber or foam seal except for the outside edges. With the exception of direct bearing, these plates are not subject to the stresses required in the masonry or shim plates and do not require the high strength or high corrosive resistance steel. These plates were therefore specified as an A36 steel. The same type of bearings are being used on the west approach of the Fremont Bridge and, due to the unique type of bearing, it is conceivable that the same fabricator will be making all the bearings. We therefore think the change is not warranted.

Item No. 2:

It is our belief that our consultant designers, Howard, Needles, Tammen and Bergendoff, have taken care of

this item. However, we are sending a copy of your memo with instructions to advise us as to the status.

The one-foot error in the elevation of the .5 point of the girder flange B2 between Piers 2 and 3 as shown on Sheet 32 will be corrected.

Item No. 3:

This item also follows the design criteria which was set up prior to the design of the West Fremont structure and was used throughout the design of the West and East Fremont Interchanges and no change in contract plans is contemplated.

Very truly yours,

Forrest Cooper
State Highway Engineer

By ORIGINAL SIGNED
TOM EDWARDS

Tom Edwards
Assistant State Highway Engineer

bc Forrest Cooper
R. L. Porter
Victor D. Wolfe
Ivan Merchant

TCR:jf ja

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
Attention: Mr. I. D. Merchant

DATE: October 8, 1969

In reply refer to: 08-35.6

FROM : R. E. Simspon, Division Engineer
for Salem, Oregon

SUBJECT: Oregon Project I-405-8(22)304
East Fremont Approaches

Plans for the above project have been reviewed. Comments are as follows:

1. Sheet 6 indicates steel between shim and masonry plates to be A36 steel. We suggest this be A588 steel as is used for the shim and masonry plates.

Noting the 1/16" clearance in the anchor bolt holes of the masonry plates, and the 1/16" clearance between the plates of the contained elastomer and the sole and masonry plates, we presume sufficient consideration has been given to erection of the central portions of the girder sections between piers.

2. Sheet 31 indicates the webs are sloped 1 on 4 to a line normal to the roadway cross slope, and the flanges are parallel to the roadway cross slope. Since the roadway cross slope varies in areas of superelevation transition, and since sheet 32 indicates the camber due to horizontal curvature neglects the effects of superelevation - this suggests the possibility that warping will result if the effect of superelevation is not considered in fabrication, or by varying the haunch of the slab.

If superelevation is to be considered it is necessary to show how the superelevation transition is made and to which cross slope the girder is to be referenced for fabrication.

If it is planned to warp these sections to accommodate superelevation transition, the State should investigate and comment on the stress effects of this warpage.

We also note a 1-foot error in the elevation of the .5 point of girder flange B2 between Pier 2 and Pier 3 (should be 126.65) on Sheet 32.

(more)

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

3. The floorbeams are spaced approximately 15 feet on centers and also act as diaphragms. They are a minimum of 30W108 regardless of the span between boxes, which span ranges from approximately 9 to 22 feet, and are in addition to the internal diaphragms inside the boxes at every floorbeams. The necessity of this amount of cross bracing is questionable, particularly on the closely spaced boxes.

some design on W. Ennest

Please investigate the items listed.

RECEIVED
OCT 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
NOV 1 - 1969
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

10-30-69

2

FOR FILING
LETTER OF APPROVAL AND/OR AUTHORIZATION

PROJECT: I-405-8(22)304

SECTION: EAST FREMONT INTERCHANGE

WORK: WATER LINE ADJUSTMENT

COUNTY: MULTNOMAH

I-405-8(22)304

TO:
MR. FORREST COOPER
STATE HIGHWAY ENGINEER
SALEM, OREGON
7310

FROM: R. E. SIMPSON
DIVISION ENGINEER
SALEM, OREGON

DATE PS&E APPROVED	DATE AUTHORIZED
JULY 16, 1969	OCTOBER 30, 1969

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW:

- ○ CONSTRUCTION – ADVERTISE FOR BIDS.
- ○ RIGHT OF WAY.
- ○ OTHER (SPECIFY).
- (XX) UTILITY ADJUSTMENT.
- ○ RIGHT OF WAY INCIDENTALS AND RELOCATION PAYMENTS.

REMARKS AND LIMITS OF AUTHORITY:

WE APPROVE THE AGREEMENT WITH THE BUREAO OF WATER WORKS FOR THE CITY OF PORTLAND CONSISTING OF YOUR AUGUST 28, 1969 UTILITIES AND RAILROAD ATTORNEY'S LETTER, THE OCTOBER 16, 1969 BUREAU OF WATER WORKS' LETTER AND THE PLANS AND ESTIMATE FURNISHED BY MR. LITCHFIELD'S OCTOBER 24, 1969 LETTER.

REIMBURSEMENT ON AN ACTUAL COST BASIS ESTIMATED TO BE $41,470.00 IS APPROVED.

CERTIFICATION AS TO THE CITY OF PORTLAND'S PROPERTY RIGHTS IS COVERED BY CITY-STATE AGREEMENTS DATED APRIL 13, 1962 AND NOVEMBER 24, 1964.

IN THAT THE RELOCATION IS TO BE MADE ON CITY STREETS NO PERMIT COVERING THIS ADJUSTMENT IS REQUIRED.

OUR PROGRAM MEMORANDUM DATED JULY 3, 1969 AUTHORIZED YOU TO PROCEED WITH PREPARATORY WORK FOR ALL UTILITY ADJUSTMENTS, TO BE INCLUDED IN THE CONSTRUCTION PHASE OF THE SUBJECT PROJECT, EFFECTIVE ON THAT DATE. YOU NOW ARE AUTHORIZED TO PROCEED WITH ACTUAL ADJUSTMENTS FOR THE ABOVE MENTIONED UTILITY EFFECTIVE TODAY. APPROVAL AND PARTICIPATION FOR THE ELIGIBLE PORTION OF THE WORK IS SUBJECT TO THE PROVISIONS OF PPM 30-4 DATED FEBRUARY 14, 1969 AND PPM 30-4.1 DATED OCTOBER 1, 1969.

11-3-69

OFFICE USE

NOTED
F. B. KLABOE

RECEIVED
OCT 31 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
10-30-69	for R. E. SIMPSON	DIVISION ENGINEER

FORM S-36 (12-57)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon

October 29, 1969

To: Memo to the Files

SUBJECT: East Fremont Interchange
Contracts 7310, 7311, 7312
Preconstruction Conference

On October 22, 1969, at 9:40 a.m., a preconstruction conference for the subject project was held in the Metropolitan Division conference room. Listed below are the people attending:

Name	Representing
*E. R. McKee	Pacific Power & Light Co.
J. E. Barclift	" " "
Clay Brown	" " "
*Mario J. Martini	Portland Bureau of Traffic Engineers
*B. T. Lawry	Canron
*George A. Marr	C. J. Montag & Sons
*A. J. Mathes	Pacific Northwest Bell Telephone Co.
D. B. Dolan	" " " " "
Ted Inloes	Oregon State Highway Department, Salem
*Ivan D. Merchant	" " " " "
*T. W. Litchfield	" " " " "
Alfred A. Rear	" " " " "
*Edgar L. Johnsen	" " " " "
George W. Bennett	" " " " Portland
*Robert Shotwell	" " " " "
Howard R. Harris	" " " " "
J. H. Versteeg	" " " " "
A. E. Johnson	" " " " "
K. D. Limbocker	" " " " "
D. L. Peterson	" " " " "
Ed J. Rief	" " " " "
A. J. Ames	" " " " "
*James Don	" " " " "
*Jack Hesla	" " " " "
Ed Hardt	" " " " "
*C. R. Lafferty	Workmen's Comp. Bd.-Accident Prevention Div.
E. D. Bowder	" " " " " "
*Jack Kopetz	Howard, Needles, Tammen & Bergendoff
George Acree	" " " "
H. A. Schell	Bureau of Public Roads
*John L. Jersey	John L. Jersey & Son
Bert James	" " "
Jack Griffith	Portland General Electric Co.
*R. T. Beasley	" " " "
Roy G. Henderson	" " " "
*T. J. Scanlon	Union Pacific Railroad Co.

*Received copies of this memo.

Name	Representing
*Carl Gudmundson	Fire Alarm, City of Portland
P. E. O'Neil	Bureau of Public Roads
*Glenn Hossner	" " "
G. Richard Weaver	Northwest Natural Gas Co.
*D. W. Mills	" " " "
*V. A. Stiger	Portland Water Bureau
A. P. Beiser	Donald M. Drake Co.
*William Bugge	Drake-Willamette Joint Venture
John R. Gray	" " " "

Mr. Jack Hesla introduced himself and several of the Highway Department engineers present. Mr. A. P. Beiser introduced himself as Field Manager for Donald M. Drake Company, and he introduced Mr. Jack Gray as Project Engineer and Mr. Bill Bugge as Project Manager for the contractor.

Mr. Hesla opened the meeting by discussing the various utility conflicts. At Pier "WE" 13 the telephone company has relocated their conduit to an alignment close to the proposed location of our sewer relocation. He cautioned the contractor to provide protection for this conduit, which will be marked in the field by the telephone company. He said the water line will be abandoned west of Larrabee Avenue and that the gas will also be cut off in this area.

At Pier "WE" 11 is a PGE power pole located in the footing area. This pole will be removed, but the power company will have to relocate their system via River Street, and they estimate that this work will take approximately three months. This work must be completed before the conflicting pole can be removed.

Pacific Power & Light has a 115 KV transmission line on the easterly side of Interstate Avenue in the area where the interchange structure crosses Interstate Avenue. The power company plans to raise this line by using 185-foot steel poles such that it will clear the uppermost structure by 32 feet. They also have a power line on Albina Avenue, and it will similarly be raised above the structure from Stanton Street to Monroe Street. These adjustments should be completed by the 10th of April, 1970.

There is a telephone conduit system in Albina Avenue which cannot be removed until after the first of the year because of a problem on delivery of cable. This requires that a telephone manhole in the intersection of Morris Street and Albina Avenue be left accessible until this line is relocated. Mr. Hesla mentioned that the various utilities have been delayed in their final planning in the East Fremont area because of Emanuel Hospital's recent announcement of their expansion plans in the area.

*Received copies of this memo.

He said that all pole lines will be removed in the area with the exception of the transmission lines mentioned above and a pole line on Knott Street in the vicinity of Borthwick and Kerby Avenue and a transmission line on the southerly side of Russell Street in the vicinity of the existing freeway. It appears as though there will be sufficient clearance under this line for driving of piling for Bent "L" 27 Left; however, this should be verified.

The only major water line relocation will be in Stanton Street, but this must be done before other mains in the area can be killed. The gas company has already completed their major relocations. They may have some minor lines to be killed, but this should not delay the contractor's work. The telephone company has relocated their lines and installed new conduits in the grading area of the project, and as soon as splicing is completed their poles will be removed.

Mr. Bill Bugge gave a general rundown on the contractor's work schedule. He said their pile driving work would be delayed because of problems in getting delivery of steel piling. Consequently their initial work will be in those footings which receive State-furnished piling and the widening portion of Unit "C" which is supported on wooden piling. They plan to coordinate their pier construction with the delivery of steel girders which is scheduled July 1970. He mentioned that they will try to do the grading work necessary for the construction of the abutments this winter if the weather conditions allow. He said that their first girder work would be on the box girders on Unit "C"—especially the "WS" line, units 3 and 4, and then the "NW" line.

In response to his question Mr. Beiser was told that there is no coaxial telephone cable in Interstate Avenue. He was told also that the fire alarm line will have to be relocated ahead of his construction, although this should create no problems.

Mr. Bugge said that he will work up a three-months schedule which will be updated monthly; however, this schedule cannot be finalized until a steel erector is selected. He also plans a weekly meeting on Fridays with Mr. Shotwell to go over the next week's schedule. He also mentioned his concern for the proposed high power line which PP&L plans to raise on the east side of Interstate Avenue. He asked if this line couldn't be "shooflyed" or possibly raised in stages. He also mentioned that their erection problems are aggravated in this area due to the large size of steel sections and the fact that they will be working over a heavily traveled street. He said that it appeared they would need more than the 32 feet of clearance between the roadway and the lines for their erecting equipment. PP&L's representative replied by saying that this plan appeared to be the only feasible solution to the conflict and that the line could only be killed for about an hour at a time. This problem will be discussed further by Mr. Heala, the contractor and the power company.

Mr. Lafferty of the Workmen's Compensation Board spoke briefly on his concern for safety on the project. He said that the protection of the workers will be his chief concern, and he felt that it was mandatory that adequate planning be put into the project to avoid such things as power line conflicts. He left the contractor a set of safety codes for the project and introduced Mr. Bowder as his representative on the project.

Mr. Bugge requested that all the utility companies give him "as built" drawings of their facilities in the interchange area depicting the location of their facilities both before and after their adjustments, for his use in attempting to avoid all utility conflicts.

He introduced two representatives of his subcontractors--Mr. George Marr of C. J. Montag & Sons, who will handle the utility relocations, sewer and storm drains; and Mr. John Jersey, who will handle the clearing and grubbing, building demolition and general excavation work. He also introduced Mr. B. T. Lawry representing Canron, who will be the structural steel fabricator. He announced also that his field office on the project will be located at 1201 N. Loring Street, Portland, 97227, and the phone number will be 288-6374 and 5.

Mr. Beasley of PGE mentioned that the street lighting will have to be maintained on those streets which are to be left open, and he volunteered to work with the contractor toward this end.

Mr. Ted Litchfield, Utilities Liaison Engineer, talked about the fact that a portion of this project is to be constructed on land owned by the Union Pacific Railroad--notably that portion between Interstate Avenue and Railroad Street. The contractor will also be involved with operating tracks, principally between Piers 13 and 14, although there are also spur tracks serving industries in the area. The Linde Products spur track is scheduled to be removed in 60 days. He also mentioned that the Union Pacific Railroad has requested that the loading ramp at the north end of the National Carloading building be left in place and not demolished. Mr. Bugge said that his company would like to utilize this ramp during construction if there were no objections from the railroad, as they plan to use portions of the Carloading building for a work area. Mr. Scanlon of the Union Pacific Railroad said he could see no objection to their use of the ramp. It was also brought out that the tracks adjoining the Carloading building will remain in place.

Mr. Scanlon also mentioned that the tenants in the National Carloading building have been relocated into the main freight house and they need one of the floor scales which have been left in the Carloading building. He said he would like to acquire one of these from the contractor. It was arranged that this would be taken care of immediately after the close of the meeting. He also mentioned that the 2400 V power line westerly of Pier 13 owned by the railroad will be relocated underground. He cautioned

the contractor regarding an overhead pneumatic tube system which will remain in place and will have to be protected.

Mr. Bugge inquired of Mr. Scanlon as to the railroad's operating procedure on their main tracks between Piers 13 and 14. He said he believed they would have to put in a falsework bent between these tracks. He inquired as to a schedule of train movements. Mr. Scanlon said that there is no formal schedule--these tracks have to be available for movement at any time. He said they will have to work each problem out as it arises with the railroad's operating people. Mr. Bugge mentioned that the majority of their work will be in the Carloading building area and that his work over the main tracks will be principally erection of structural steel, which should take one or two days. At this point the utility representatives were excused from the meeting.

Mr. Jack Gray outlined briefly the schedule for the sewer and demolition subcontractors. He said they had intended that the sewer work would start in the vicinity of Piers 13 and 11 in order to clear the pier area. With the pole conflict at Pier 11, however, their plans for this area may change. John L. Jersey Company is presently demolishing the old City yards on Morris Street, and he will do whatever grading work the weather will allow and will shift back to demolition work during bad weather.

Mr. Ivan Merchant mentioned that two of the structure abutments were designed for the future ramps that have been eliminated from the current project. Since the earthwork for these future ramps is not a part of the project, he requested the Metropolitan Division investigate deleting parts of these abutments to the end that they are not left projecting into an unfilled area. Mr. Shotwell commented that if there is a reduction in the size of the abutment the pile order for the abutment will have to be reduced. Mr. Merchant also requested information from the contractor regarding the location of fabrication of structural steel so that the State can arrange for steel inspection.

Ed Johnsen, the State's Equal Employment Opportunity Officer, spoke about the contractor's obligation with regard to equal employment and said that he will schedule an early meeting to go over the contractor's planning. Mr. Bugge commented that Donald M. Drake Company's treasurer, Bud McDonald, will be representative for their over-all equal employment opportunity program. He also mentioned that their peak employment should be in late 1970, at which time there will be about 160 employees on the project.

Mr. Bugge was handed a "procedure plan" showing the routing for checking and approving of shop drawings through the consulting engineer. He was told that the consultant has the authority to approve shop details for the Highway Department but any changes involving extra costs will be handled through the resident engineer.

Mr. Jack Gray requested that the Highway Department's model of the interchange be kept in Mr. Shotwell's office for their reference. It developed later that this will be done.

Mr. Bugge mentioned that Donald M. Drake is the administrative company as far as the project is concerned. In addition to himself, the field office will have two or three engineering people, and they will have a structural superintendent, labor superintendent and a general foreman on the project. He said that Willamette Western, on Drake's payroll, will do the pile driving. He also asked that all correspondence with the exception of pay vouchers be directed to the job address rather than Drake's main office. He said that the reinforcing steel will come from Gilmore Steel, concrete from Willamette Hi-Grade, and timber piling from American Timber & Trading Company.

The meeting was adjourned at 11:30 a.m.

A. E. Johnson
Metropolitan Engineer

by

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:lh

RECEIVED
OCT 23 1969
FOR FILING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

October 22, 1969

To: A. E. Johnson
Metropolitan Engineer

PORTLAND

SUBJECT: East Fremont Interchange Section
I-405

A few days ago, Bud McDonald of the Donald M. Drake Company called relative to their three contracts covering the East Fremont Interchange. These contracts were awarded to Willamette River Constructors, which is a joint venture between Donald M. Drake Company and Willamette Western Corporation.

Mr. McDonald requested that for this project the contractors' name be changed to Drake-Willamette, Joint Venturers. I told him that the Division had no objection but had to check into what procedure is necessary to effect this change.

I am advised by the Legal Department that the following is necessary:

File a new assumed business name registration with the Corporation Division for the name Drake-Willamette, Joint Venturers. This will be appropriate if, as we understand, they wish to continue in conducting other jobs under the name of Willamette River Constructors.

When the above is accomplished a letter from the contractors to the Secretary to the Highway Commission so indicating will be sufficient. This written request can then be filed by the Secretary in the contract files and thereafter payments on the East Freemont contracts can be paid under the new name. Because of the possibility that obligations in connection with the projects may have already been incurred under the name of Willamette River Constructors, they should also provide us with written consent of the two sureties involved. Mr. McDonald advised that they are Travelers Indemnity Company and General Insurance Company of America.

Will you please convey this information to the contractor.

NOTED
TOM EDWARDS

ORIGINAL SIGNED
R. L. PORTER

R. L. Porter
Deputy State Highway Engineer

RLP:ms
cc Forrest Cooper
Tom Edwards
Victor D. Wolfe
Floyd Query
G. E. Rohde
V. E. Skoog

RECEIVED
OCT 23 1969
FOR FILES

GP-23811-794

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 21, 1969

I-405-8(22)304
1 1 11

To:

SUBJECT: East Fremont Interchange Section
I-405
Change of name by joint venturers

Mr. R. L. Porter
Deputy State Highway Engineer
B u i l d i n g

I have in hand a copy of your memo to the Files dated October 20, 1969 relative to the above subject.

We have confirmed that the joint venturers are required by law to register as an assumed business name their existing name of "Willamette River Constructors", and that they have done so. This, we understand, is the name in which the three contracts on the above sections have been awarded.

According to the Corporation Division, in order to use the different name of "Drake-Willamette, Joint Venturers" on the East Fremont contracts, it would be necessary for them to take one of two steps: (1) Simply file a new assumed business name registration with the Corporation Division, for the name "Drake-Willamette, Joint Venturers." This will be appropriate if, as we understand, they wish to continue in conducting some other job or jobs under the original name of "Willamette River Constructors." Or (2) If all of their operations in the state are to be conducted under the new name, then the existing registration under the name "Willamette River Constructors" should be cancelled or withdrawn and a new registration of the name "Drake-Willamette, Joint Venturers" should be filed.

When one of the above steps has been accomplished, it would appear that a letter from the contractors to the Secretary of the Commission so indicating should be sufficient, and should be filed by the Secretary in the contract file. Thereafter, payments, etc. could be made under the new name.

Because of the possibility that obligations in connection with the Fremont projects may have already been incurred under the name of Willamette River Constructors, it would appear that the contractors should also provide us with written consent of the two sureties involved.

G. E. RONDE
Chief Counsel

GER:AMJirh
cc: Forrest Cooper
Tom Edwards
Victor D. Wolfe
Floyd Query
Alan M. Johnson

NOTED
FORREST COOPER

RECEIVED
OCT 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

OCT 21 1969

FOR FILE

I-405-8(22)
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 20, 1969

To: Files

SUBJECT: East Fremont Interchange Section
I-405

On this date, Bud McDonald of Donald M. Drake Company called relative to the three contracts which were awarded on Units A, B, and C of the East Fremont Interchange Section. These were awarded to Willamette River Constructors, which was made up of a joint venture between Donald M. Drake Company and Willamette Western Corporation.

The contractors request that the name on the contracts be changed to Drake-Willamette, Joint Venturers.

They would have the same sureties---Travelers Indemnity Company, 60 percent; General Insurance Company of America, 40 percent.

R. L. Porter
Deputy State Highway Engineer

RLP:ms
cc Forrest Cooper
Tom Edwards
Victor D. Wolfe
G. E. Rohde
Floyd Query

RECEIVED
NOV 1 - 1969
FOR FILING
I-405-8(22)304
7310

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

OCTOBER 16, 1969

FileRef. D 9010 - 32 - 17

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Unit "A" - E. Fremont Interchange
Section, Stadium Freeway - Proj.
No. I-405-8(22)304

Referring to Sheet 3 of your Plans for Unit "A", above-referenced project, it is indicated that you plan to remove the loading dock located northerly of the National Carloading Co. building.

Will you please review your plans with the idea in mind of possibly retaining the unloading dock? This dock is of concrete construction with a 20-ft. concrete ramp on the northerly end. It is situated adjacent to trackage which will remain in place, and, if the dock does not present a conflict with construction of bridge pier, we request that the dock be retained.

If at all possible, will you please consider this request since the dock will serve a useful purpose in supplementing our operations.

Very truly yours,

Copies to: FB Kendall
AE Johnson
JL Sollis
Robt. Shotwell
Jack Hoels

RECEIVED
OCT 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

10-21-69
E

Routing
Morgan
Decker
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Walker
Doehme
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OCT 1 1969
CONSTRUCTION DIVISION
Peaso
Swan
Glenn
Litchfield
Gallagher
NOTED
J. M. CARTWRIGHT

RECEIVED
SEP 23 1969
FOR FILING

I-405-8(32)304
7310

September 23, 1969

Mr. Franklin Drake
Willamette River Constructors
1740 N. W. Flanders Street
Portland, Oregon 97209

Dear Mr. Drake:

Reference is made to our recent telephone conversations concerning the lump sum deduction submitted on Unit A for the work at the East Fremont Interchange in Portland.

It is my understanding that you desire to have the lump sum deduction applied prorata to Units B and C rather than all apply to Unit A. This has been discussed with the local office of the Bureau of Public Roads, and they have stated that they would have no objection to executing a change that would permit this adjustment. They stated quite positively, however, that the procedure must be in the form of a change after the contracts had been executed in their original form.

If our figures are correct, this would make the deduction $750,382.02 for Unit A; $518,705.71 for Unit B; and $115,912.27 for Unit C. These deductions would then be applied on a prorata basis against the monthly estimates as the amounts of these estimates bear to the total value of the contract.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms
bc Bureau of Public Roads
bbc Forrest Cooper
F. B. Klaboe
F. D. Morgan
L. H. Young
V. E. Skoog
Floyd Query
Victor D. Wolfe
A. E. Johnson

East Fremont Interchange

	Bid Amount	Lump Sum Reduction	Amount of Bid after Lump Sum Reduction Prorated to each Unit
Unit "A"	$13,745,369.00	750,382.02	12,994,986.98
Unit "B"	9,501,562.00	518,705.71	8,982,856.29
Unit "C"	2,123,261.00	115,912.27	2,007,348.73
	25,370,192.00	1,385,000.00	23,985,192.00

RECEIVED
SEP 23 1969
FOR FILING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 22, 1969

To: MEMO TO THE FILES

SUBJECT: East Fremont Interchange, Unit "A"
Contract No. 7310
Lump Sum Deduction

In Memo dated September 17, 1969 from this office, the contract was incorrectly referred to as Contract No. 7312, Unit "C".

Vince Gallagher
Contract Payments Engineer

VG:fw

cc: Tom Edwards
I. D. Merchant
A. E. Johnson
Robert Cunningham
John A. Bond
V. E. Skoog
George LeTourneux

NOTED
ACTION

RECEIVED
SEP 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 18 1969

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

FOR FILE

7310

Salem, Oregon
September 17, 1969

To: MEMO TO THE FILES

SUBJECT: East Fremont Interchange, Unit "C"
Contract No. 7312 7310
Lump Sum Deduction

Willamette River Constructors provided in their bid proposal on the above-mentioned project for a lump sum deduction ($1,385,000) from the bid amount of $13,745,369.00.

In accordance with the Special Provision Revision Letter 3, August 27, 1969, the Resident Engineer will deduct ten percent (10%) from each partial payment to the contractor until the lump sum deduction is realized. Price Agreements will be included in the partial payment and force account (EWO) work will be excluded.

The amounts to be deducted will be entered on the pay estimate form as an adjustment item (6000 series).

Vince Gallagher
Contract Payments Engineer

VG:lw

cc: Tom Edwards
L. D. Merchant
A. E. Johnson
Robert Cunningham
John A. Bond
V. E. Skoog
George LeTourneux

NOTED
TOM EDWARDS

RECEIVED
SEP 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

DEC 1 - 1969

Attachment 1

Interstate Estimate and Actual Cost for
Fremont Bridge and Connecting Interchanges

I-405-8(22)304
7310

(Amounts in $1,000)

Project	Obligation Date	Contract No.	1968 Interstate Estimate	Project Authorization on 9/15/1969
Superstructure Fremont Bridge 405-8(17)303	6/69	7276	$18,035	$24,055
West Fremont Interchange 405-8(20)303	5/69	6,247	$20,591	$20,868
East Fremont Interchange Unit A 405-8(22)304	7/69		$10,204	$13,262
East Fremont Interchange Unit B 405-8(23)304	7/69		$ 6,699	$10,003
East Fremont Interchange Unit C 405-8(24)304	6/69		$ 2,395	$ 2,345
			$57,924	$70,533

6,362 Not Included

September 16, 1969

NOTED
F. B. KLAUS

RECEIVED
SEP 16 1969

I-405-8(22)304
1310

September 16, 1969

Willamette River Constructors
1740 N.W. Flanders Street
Portland, Oregon 97209

Gentlemen:

Enclosed are three copies of Contract No. 7310 for $12,360,369 awarded to you by the State Highway Commission on September 11, 1969. This contract is for construction on the East Fremont Interchange Section, Unit A, of the Stadium Freeway in Multnomah County.

Two of these copies should be signed on the contract and bond pages and returned to this office for completion. Please follow exactly the instructions given on the blue slip attached to the contract.

The third copy of the contract stamped "Advance Copy to be Retained by Contractor" is furnished for your information pending receipt of a fully executed copy.

The calendar day count on this contract will begin September 27, 1969.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cc
Enclosures

bc: F. D. Morgan
D. J. Barbee
I. D. Merchant
William Geibel (SAIF)
A. E. Johnson
Robert Cunningham

RECEIVED
SEP 15 1969

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

7310

September 12, 1969

Willamette River Constructors
1740 N.W. Flanders Street
Portland, Oregon 97209

Gentlemen:

The State Highway Commission on September 11 awarded to you as the combined low bidder, three contracts on the East Fremont Interchange on which bids were opened earlier in the day.

The awards were made as follows:

Contract No. 7310, Unit A, for $13,745,369 less the lump sum deduction which you offered under Qualification Clause No. 3 in the amount of $1,385,000, leaving a net contract amount of $12,360,369.

Contract No. 7311, Unit B, for your bid of $9,501,562.

Contract No. 7312, Unit C, for your bid in the amount of $2,123,261.

Contract forms are being checked and will be forwarded to you early next week.

Very truly yours,

ORIGINAL SIGNED
FLOYD QUERY

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

FQ:cr

bc: R. L. Porter
L. H. Young
Frank Morgan
D. J. Barbee
I. D. Merchant
William Geibel (SAIF)
A. E. Johnson
Robert Cunningham
Pacific Builder & Engineer, Inc., Seattle, Wash.
Daily Journal of Commerce, Seattle, Wash.
Daily Journal of Commerce, Portland, Ore.

RECEIVED
SEP 15 1969
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
R. L. PORTER

RECEIVED
SEP 15 1969
FOR FILING

I-405-8(22)304
7310

September 12, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Dear Sir:

Confirmation of your tentative concurrence as of September 11, 1969, is requested in the award of contract for the E. Fremont Interchange (Unit A) Section, Project No. I-405-8(22)304.

The contractor receiving the award is Willamette River Constructors, in the amount of $13,745,369.00 (plus a lump sum reduction of $1,385,000.00 or $12,360,369.00), with Contract No. 7310 assigned. This bid was received on September 11, 1969, and awarded September 11, 1969.

All right of way or rights of entry have been acquired.

The low bidder completed the Anti-Collusion Statement included in our proposal, as required by PPM 21-6.1, and it will be retained in a permanent project file.

All rights of access, including utilities, to or from abutting property are either (1) denied by law, (2) have been acquired, or (3) have been acquired in condemnation proceedings which have been commenced and will be prosecuted to completion. All necessary arrangements have been made for all utility and railroad work not included as part of the construction contract to be undertaken and completed without conflicting or delaying the State contractor's operations.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Progress and Planning Engineer

Bureau of Public Roads' Endorsement

Date_____
I concur in the award.

R. E. Simpson
Division Engineer

BAR:bb

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
TELEPHONE (503) 226-3891

RECEIVED SEP 12 1969

September 16, 1969

I-405-8(20)304
7310

Oregon State Highway Department
Highway Building
Salem, Oregon 97310

Attention: Mr. Floyd Query

A

Gentlemen:

Reference is made to your letter dated September 12, in which you notified us of being awarded all three units of the East Fremont Interchange project.

Your letter indicates an intention of applying the lump sum deduction to Unit A in its entirety, which is contrary to our understanding of the contents of Revision Letter #3, dated August 27, 1969.

Revision Letter #3 states, "If award is made on the basis of a lump sum reduction, the lump sum reduction shall be deducted in a pro-rata amount from each partial payment, on the ratio as the lump sum deduction bears to the total amount bid."

Our interpretation of this paragraph presumed, upon award of all three units, they would be combined under one Contract and that the lump sum reduction would be applied to total monies earned on all three units.

We will appreciate your consideration and analysis of our interpretation, and will be interested in reviewing this further at your convenience.

Very truly yours,

DONALD M. DRAKE COMPANY

R. E. Grant, Manager
Estimating Department

Copies to Rohde
Portier 9-17

9AM 9-17
Franklin Drake phoned. Repeated Point of view outlined in this letter. Told him I would try to arrange a conference with Legal & Engr. representation on 9-26, 11AM 29 PM or 30 anytime
FQ.

11:55AM 9-17
Phoned F. Drake - he said he would call Portier this P.M.

NOTED
FLOYD QUERY

RECEIVED
SEP 17 1969
OREGON
STATE HIGHWAY COMMISSION

REG:bp

RECEIVED
SEP 8 1969

FOR FILING
I 405-8(22)+(1)
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon 97310
August 28, 1969

To: MEMO TO THE FILE

SUBJECT: Units A, B and C, East Fremont Interchange Project

At approximately 8:30 this morning, I was informed that a telegram (copy attached) had been sent to plan holders on this project on August 27, 1969, and that at least two contractors had not received their copies. The contractors are: Al Johnson Construction Company, Englewood, Colorado and Raymond International, Seattle, Washington.

I was therefore instructed to withdraw these jobs from the opening and to announce that bids would be opened on them on September 11. I notified all those in the audience the reasons for the withdrawal and advised them that we would either: (1) return their bids unopened by registered mail; or (2) deliver their bids to them upon their showing appropriate identification and signing for them.

Several of those in the audience had not yet turned their bids in and they were advised to keep them and that we would make adequate notice to all contractors and in the appropriate news media of the change in the bid opening date.

ORIGINAL SIGNED BY
E. B. KLABOE

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

cc: Forrest Cooper
R. L. Porter
Tom Edwards
L. H. Young
Ivan Merchant
Floyd Query
V. E. Skoog
F. D. Morgan

NOTED
C. W. HEAD

DOMESTIC SERVICE
Check the class of service desired, otherwise this message will be sent as a fast telegram
TELEGRAM
DAY LETTER
NIGHT LETTER

$
S
E

WESTERN UNION
TELEGRAM

1211 (4-55)

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE
Check the class of service desired; otherwise the message will be sent at the full rate
FULL RATE
LETTER TELEGRAM
SHORE SHIP

NO. WDS.	CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

SALEM, OREGON
AUGUST 27, 1969

TO BIDDING PLAN HOLDERS ON UNITS "A", "B" AND "C" EAST FREMONT INTERCHANGE PROJECT:

BIDDERS WILL BE PERMITTED TO STIPULATE IN WRITING ON THE QUALIFICATION SHEET IN THE PROPOSAL THAT THEIR BID HAS BEEN MADE ON THE BASIS OF BEING AWARDED ALL THREE UNITS OR NONE.

THE PROVISIONS SET FORTH IN THE SPECIAL PROVISIONS UNDER "CONSIDERATION OF BIDS" WILL REMAIN IN EFFECT, EXCEPT AS FOLLOWS:

ON PAGE 1 OF SPECIAL PROVISIONS DELETE 4TH PARAGRAPH UNDER "CONSIDERATION OF BIDS" AND SUBSTITUTE FOLLOWING:

"IF AWARD IS MADE ON THE BASIS OF A LUMP SUM REDUCTION, THE LUMP SUM REDUCTION SHALL BE DEDUCTED IN A PRO RATA AMOUNT FROM EACH PARTIAL PAYMENT, ON THE RATIO AS THE LUMP SUM DEDUCTION BEARS TO THE TOTAL AMOUNT BID."

LETTER FOLLOWS.

FORREST COOPER
STATE HIGHWAY ENGINEER
OREGON STATE HIGHWAY DEPARTMENT

REPORT DELIVERY

Now opened - Returned by Reg. mail Notices to all contractors with approp. new models

Sept ## 11

(Send bids back to them) & sign receipt for them -

RECEIVED
AUG 27 1969

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
August 26, 1969

I-405-8(22)304
7310

SUBJECT:

To: MEMO TO THE FILE

On this date, we had questions from a contractor concerning the legality of submitting bids for Units A, B, and C of the East Fremont Interchange section of the Stadium Freeway on a "tied bid" basis, with the stipulation that the contractor would not accept any of the work unless he was awarded all three units.

After discussion by phone with Mr. R. E. Simpson of the Bureau of Public Roads, decision was taken to furnish bidders with an addendum by telegram stating:

> 'Bidders will be permitted to stipulate in writing on the qualification sheet in the proposal that their bid has been made on the basis of being awarded all three units or none.
>
> 'The provisions set forth in the special provisions under "Consideration of Bids" will remain in effect, except as follows:
>
> 'On page 1 of special provisions delete 4th paragraph under "Consideration of Bids" and substitute following:
>
> '"If award is made on the basis of a lump sum reduction, the lump sum reduction shall be deducted in a pro rata amount from each partial payment, on the ratio as the lump sum deduction bears to the total amount bid."
>
> 'Letter follows.'

This means, in essence, that the "tied bids" would not be considered illegal bids and would be accepted but that the award would be made on the basis of the lowest possible combination of single bids or the lowest possible "tied bid" for the three units, whichever might result in the lowest possible contract price for the entire East Fremont Interchange.

Tom Edwards
Assistant State Highway Engineer

TE:ja

cc/enc. Mr. R. E. Simpson
Bureau of Public Roads

DOMESTIC SERVICE
Check the class of service desired, otherwise this message will be sent as a fast telegram

TELEGRAM	
DAY LETTER	
NIGHT LETTER	

$
S
E

WESTERN UNION
TELEGRAM

W. P. MARSHALL, PRESIDENT

1211 (4-55)

INTERNATIONAL SERVICE
Check the class of service desired; otherwise the message will be sent at the full rate

FULL RATE	
LETTER TELEGRAM	
SHORE-SHIP	

NO. WDS -CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

SALEM, OREGON
AUGUST 27, 1969

TO BIDDING PLAN HOLDERS ON UNITS "A", "B" AND "C" EAST FREMONT INTERCHANGE PROJECT:

BIDDERS WILL BE PERMITTED TO STIPULATE IN WRITING ON THE QUALIFICATION SHEET IN THE PROPOSAL THAT THEIR BID HAS BEEN MADE ON THE BASIS OF BEING AWARDED ALL THREE UNITS OR NONE.

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LETTER FOLLOWS.

FORREST COOPER
STATE HIGHWAY ENGINEER
OREGON STATE HIGHWAY DEPARTMENT

REPORT DELIVERY

RECEIVED
JUL 30 1969
GAME
COMMISSION

OFFICE OF THE DIRECTOR

P. O. BOX 3503 • 1634 S.W. ALDER ST. • PORTLAND, OREGON • 97208 • Ph. 222-9611

I-405-8(22)304
130

TOM McCALL
GOVERNOR

COMMISSIONERS
GEORGE L. HIBBARD, Chairman
J. PAT METKE, Vice Chairman
JOHN P. AMACHER, Member
JOSEPH W. SMITH, Member
JAMES W. WHITTAKER, Member

JOHN W. McKEAN
State Game Director

July 18, 1969

cc's sent 7-22-69

F.B. Klaboe
L.H. Young
F.E. Terpin (5)
T.C. Roake (5)
C.G. Swenson
W.H. Tebeau
A.E. Johnson (2)
C.T. Keasey (4)
H.S. Coulter (4)

State Highway Engineer
Highway Building
Salem, Oregon 97310

Attention: Mr. Frank L. Hall

Dear Sir:

This is in reply to your letter of July 7, 1969, which included plans for five projects.

A review of these projects indicate that there will be no conflict with wildlife resources.

The following projects are approved:

1. East Fremont Interchange Section Stadium Freeway, Multnomah County

2. North and South Canyonville and West Fork Interchanges Pacific Highway, Douglas County

3. Speaker Road, Wolf Creek and Sunny Valley Interchanges Pacific Highway, Josephine County

4. N.W. 4th Avenue-Arcata Way Section FAS 23-103, Malheur County

5. Barth Crossing-U.S. 30 Connection Section FAS 470, Umatilla County.

We appreciate the opportunity to comment on these projects.

Very truly yours,

R. O. Koski

R. O. Koski
Chief of Liberation

RECEIVED
JUL 23 1969
OFFICE OF
STATE HIGHWAY ENGINEER

ROK:js
cc: Dir. OFC

TRANSACTION NOS. 7-1 THRU 7-3

1 Cy Cert

FORM PR-48
(REV. 7-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT	DATE
OREGON	7-3-69
BY (Signature) MR. YOUNG'S JUNE 25, 1969 LETTER	TITLE

CLASS OF FEDERAL FUNDS: ☒ FAI ☐ FAP ☐ FAU ☐ FAS ☐ OTHERS

STAGE 1 * ITEM NOS. ___ THRU ___ / ITEM NO.	PROJECT NOS.	STAGE 2 ITEM NOS. 585 THRU 587 / LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS	OTHER IDENTIFICATION AND/OR REMARKS (State) LOCATION	WORK
585	I-405-8(22)304	0.25	11,830,000.00	10,883,000.00	EAST FREMONT INTERCHANGE	ONE STEEL APPROACH STRUCTURE
586	I-405-8(23)304	0.11	9,610,000.00	8,841,000.00	EAST FREMONT INTERCHANGE	STEEL RAMP - STRUCTURE COMPLEX
586	I-405-8(24)304	0.0	1,660,000.00	1,527,000.00	EAST FREMONT INTERCHANGE	THREE CONCRETE RAMP STRUCTURES

7-8-69
RETURNED TO
Young
BY A/ST. STATE HWY. ENGR

NOTED
F. B. KLABOE

RECEIVED
JUL 7 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RKS (Division)

RECEIVED
JUL 8 - 1969
FHWA

YOU ARE AUTHORIZED TO PROCEED WITH THE NECESSARY PREPARATORY WORK FOR RAILROAD AND UTILITY ADJUSTMENTS UNDER ITEM 585 - I-405-8(22)304.

IT IS UNDERSTOOD THAT THE CONSTRUCTION OF THE RAILROAD'S "YARDMAN L&T BUILDING" IN ITEM 585 - I-405-8(22)304 WILL BE ACCOMPLISHED UNDER A SEPARATE CONTRACT FROM THAT FOR THE MAIN STRUCTURES.

AUTHORIZATION TO PROCEED WITH ADVANCE CONSTRUCTION ENGINEERING WILL BE GIVEN AT THE TIME PS&E APPROVAL IS GIVEN.

RECOMMENDED		APPROVED	
SIGNATURE AND TITLE	DATE	SIGNATURE AND TITLE	DATE
	7-3-69	R.E. SIMPSON, DIVISION ENGINEER	

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

GPO 927-934

RECEIVED
JUL 3 - 1969
FOR FILING

RECEIVED
JUL 3 - 1969
FOR FILING

E-405-8(22)304
7310

July 3, 1969

Oregon State Highway Commission

Gentlemen:

On the agenda for the July 8 meeting will be the matter of entering into an agreement with the Union Pacific Railroad Company covering right-of-way across the Albina Yards on Interstate 405 in Portland.

Right-of-way negotiations with the Railroad Company have been carried on for a number of years, and it was felt that Federal condemnation through the Bureau of Public Roads would be necessary. At the last minute, the Railroad agreed to an entry permit with the only unknown as yet to be resolved being property value. In case we cannot agree eventually on this figure, it will be necessary to condemn in State court on the value matter only.

The agreement covers relocation of Railroad facilities and protective service during construction. This is estimated to cost $336,602. It has Bureau of Public Roads approval and is subject to Federal reimbursement. The agreement was executed by Mr. Jackson and Mr. Bruno on June 13 and your confirming action is recommended.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
F. D. Morgan (Attn. Litchfield)
L. H. Young
V. E. Skoog
G. E. Rohde (Attn. Sollis)
D. H. Moehring

RLP:ms sr

RECEIVED
JUL 7 - 1969

FOR FILES

Const
- Hwy
Maint - Bldg

E Transmit Ltr
I-405-8(22)304

June 25, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97301

Dear Sir:

We are submitting program data for three Interstate Projects, Items 585, 586 and 587, Projects I-405-8(22)304, I-405-8(23)304 and I-405-8(24)304, which we desire to have included in the Federal-Aid Interstate Highway Program.

These three projects are the major portion of the Fremont Interchange Complex. The balance of the interchange consisting of the ES, SE, NE and EN ramps are to be constructed at a future date.

It is our present intention to receive bids for these projects on August 28, 1969 and to preadvertise same beginning July 3, 1969 with formal P. S. & E. advertisement from August 7, 1969. The complexity of the projects require the extended advertising period.

We hereby request your approval and authorization to proceed with construction engineering for these projects. We consider the plans submitted to you on June 5, 1969 as the final design, with the exception of possibly a few minor changes. We consider it necessary to proceed with the field staking of these projects in advance of advertising and award because of the complexity of design and enormous amount of engineering work to be done so the contractors may begin work as soon as the contracts for the projects are awarded. The need for advance construction engineering is similar to that of Project I-405-8(20)303, West Fremont Interchange.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Program & Planning Engineer

cc: F. B. Klaboe
F. D. Morgan

RC:sw

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

FEDERAL-AID (PP

CARD 2	REPORT NUMBER (18)–(20): 1	PROJECT LOCATION (45 typewriter spaces) 21–65: I-405 E. Fremont Interchange (Portland)				ADT	PRESENT: 43,600	FUTURE (66): 72,400	(70)	(71)	YE	
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28–62: Structure	NATL. FOREST (63)–(65)	FH ROUTE NO. (66)–(69)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)–(73)	PL. AU (74)				
CARD 4	CLASS OF FEDERAL FUNDS: Interstate						COUNTY NAME: Mu					
	NAME OF URBAN AREA (17-31): Portland						ROUTE NO. I	FEDERAL- I-405				

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT: TOTAL ESTIMATED COST	FEDERAL FUNDS
1	(14-15)	(16)	41	42	43–46	53		(54)–(58)	(59)–(66)	(67)
5					PE		I-405 E. Fremont Interchange (Portland)			
5					ROW					
5					CONST (CODE)			0.25	11,830,000	10,883,000
							PROJECT TOTALS	0.25	11,830,000	10,883,000

(16) (23) (24)

CARD 1	CODE 1	PREPARED BY
1	14	PROGRAM APPROVAL DATES

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

	ADT	PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
	ADT	43,600	72,400	89	08	Oregon	35	042	585

SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	I Projects Only POST MI.	DESIG.
					I-	405-8(22)		304	

COUNTY NAME	CODE	PROGRAM STAGE
Multnomah	051	1 OR X 2

ROUTE NO.	FEDERAL-AID	STATE	U.S.
I	I-405		I-405

MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
					One approach Str. to Main Bridge, length 1331'. Two levels with 4-12' lanes with 10' shldrs. each level. (Steel Box Girders with Concrete Deck.) ROW - 200' normal access control-full parking restrictions complete. RR and Utility - Adj. Req. incl. prep. work.
0.25	11,830,000	10,883,000	947,000		
0.25	11,830,000	10,883,000	947,000		

REMARKS

Additional Data: Items 35A & 35D, Projects I-405-8(1)301 & I-405-8(4)303; Items 34-I & 241, Project I-5-6(25)303 & I-5-6(34)303.

USCOMM DUSCOMM-DC 48908-P61

Remarks Cont.

The project consists of construction of a portion of the EW and WE line main approach span to the main river span, approximately 1360', and a portion of the SW and WS approach ramps. Included in the project is all Railroad and Utility adjustments and construction throughout the interchange complex to facilitate control and accounting procedure for such adjustments.

Projects I-405-8(23)304 and I-405-8(24)304 with this project constitute the major portion of the interchange complex.

The contract for this project will contain provisions for construction of the railroads "Yardman L. & T. building (Board and Room)" on a new location to replace the existing building which must be demolished to accommodate the highway project.

Remarks Cont.

The project consists of construction of a portion of the EW and WE line main approach span to the main river span, approximately 1360', and a portion of the SW and WS approach ramps. Included in the project is all Railroad and Utility adjustments and construction throughout the interchange complex to facilitate control and accounting procedure for such adjustments.

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RECEIVED
MAY 23 1969

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: May 21, 1969

In reply refer to: 08-35.6

Edwards
cc Klaboe
5.22

SUBJECT: Oregon Project I-405-8( )303
Fremont Interchange Structures

A

I feel you have done an excellent job in packaging this very costly project. I feel that the thoughtful consideration given to the divisions will result in more competition with minimum amount of disruption and overall an expected reduction in total cost.

I approve the packaging as outlined in Mr. Edward's May 13, 1969 letter and request that you prepare your contracts accordingly.

Copy - Merchant - Yount - Barker
5-22-69

NOTED
TOM EDWARDS

RECEIVED
MAY 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

MAY 15 1969

I-405-8(22)304
7310

A

May 13, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Re: I-405-8( )303
East Fremont
Interchange structures
Your File 08-35.6

Dear Sir:

Your memorandum dated April 30 regarding the East Fremont Interchange requests the State to study the idea of packaging the project into smaller segments for contracting rather than one large contract.

This the State has done and we believe it entirely feasible to split the initial project into three separate contracts. I am enclosing two copies of a letter-sized plan sheet and a copy of a preliminary square foot estimate of the proposed contracts. Referring to the enclosed sketch, the proposed contracts are listed as Part 1, Part 2, Part 3 and Future Construction. We believe the extent of each part is a logical portion and that the State should, by this method, encourage competition by smaller contractors.

With reference to the approximate estimates, it is noted that Part 1 is still in excess of $11,000,000. However, this includes all of the double deck structure through the Union Pacific rail yards and includes all of the ring-type pier supports. Part 2 contains the balance of the structural steel, but is basically all single-level construction. Part 3 would be a comparatively small contract on which any number of local contractors would be qualified.

It should be pointed out that at the present time our Consultants, Howard, Needles, Tammen and Bergendoff, are completing the detailing. They have been requested to package the project into four separate contracts and with the special provisions and estimates prepared for each contract. Special care will have to be taken in the contract preparation to insure that at the junction planes between contracts, responsibilities are clearly spelled out.

The State believes that the contract administration for a project such as this will be much more difficult with the three contracts. However, the promotion of competition should keep prices in line. It should also be noted that the enclosed estimate is made from prices bid on the West Fremont Interchange and applied on a square foot basis, as at this time we have not received final quantities from our Consultants.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

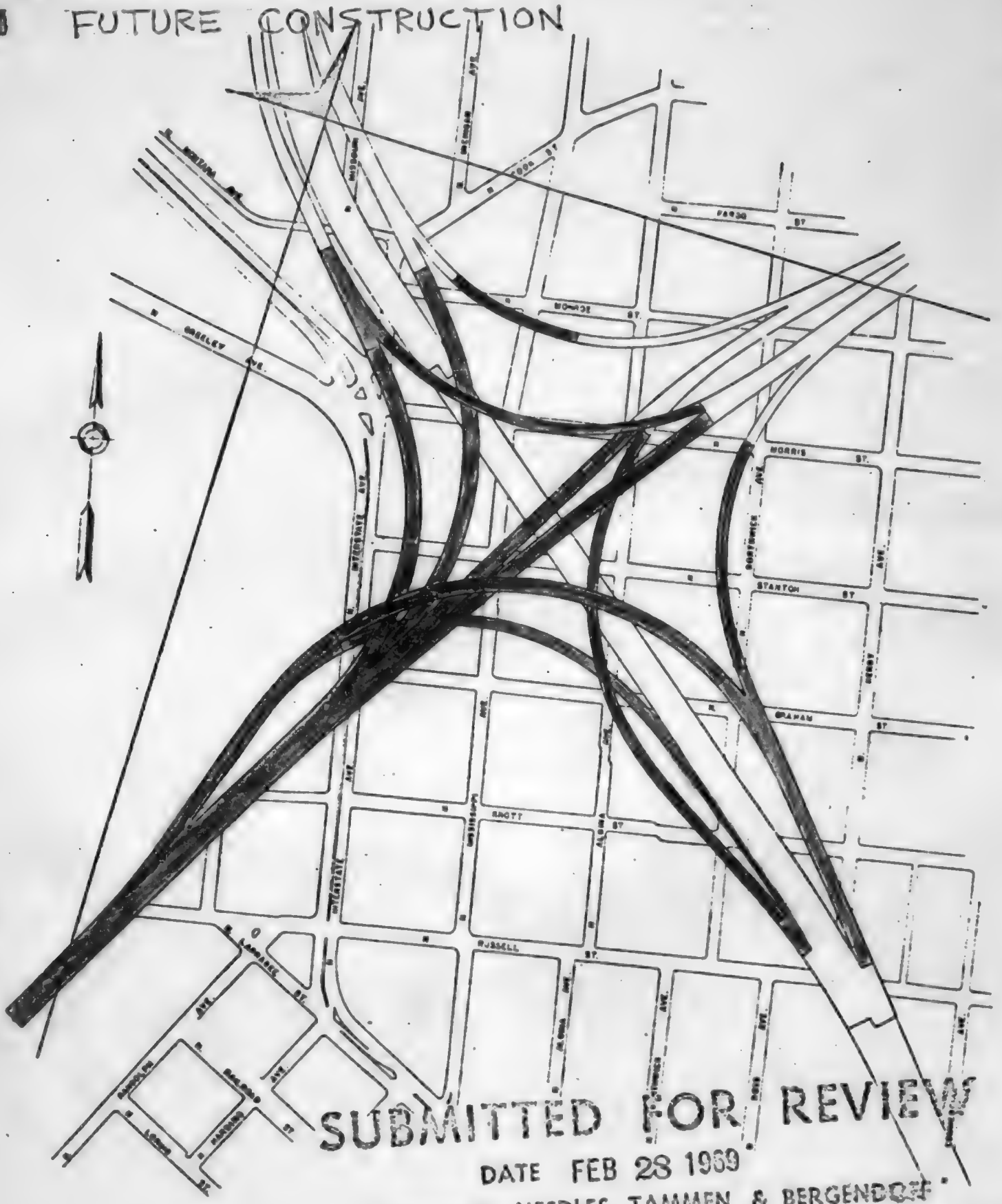
Tom Edwards
Assistant State Highway Engineer

Enc.

bc Forrest Cooper
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
Ivan Marchant
L. H. Young

IDM:jr ja

PART I
PART II
PART III
FUTURE CONSTRUCTION



VED
HWAY DEPT.
IVISION
PM
2,8,4,5,6

SUBMITTED FOR REVIEW
DATE FEB 28 1969
HOWARD, NEEDLES, TAMMEN, & BERGENDOFF

REVISION

OREGON STATE HIGHWAY DEPARTMENT
BRIDGE DIVISION

FREMONT BRIDGE APPROACHES
EAST FREMONT INTERCHANGE
MULTNOMAH COUNTY

Form X-[illegible]

Oregon State Highway Department
BRIDGE DESIGN SECTION

Sheet 8

Bridge East Fremont County Mult.

Calculations by WOOD Date May 5, 1969 Bridge No. 8958

Part I

240,000 □' @ $44	=	10,560,000
12% E & C	=	1,270,000
		$ 11,830,000

Part II

195,000 □' @ $44	=	8,580,000
12% E & C	=	1,030,000
		$ 9,610,000

Part III

60,000 □' @ $18	=	1,080,000
20,000 □' @ $20	=	400,000
		1,480,000
12% E & C	=	180,000
		$ 1,660,000

Total Estimate = $ 23,100,000

RECEIVED
MAY 8 1969

FOR FILING
I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem Office
May 6, 1969

To: MEMORANDUM TO FILE:

SUBJECT: Completion Time-
Fremont Bridge Complex

The contract for the West Fremont Interchange Project was awarded April 29, 1969. Completion time for the project is 850 calendar days, making the completion date September 6, 1971.

The specifications for the Fremont Superstructure Project require completion in 860 calendar days with a bid opening scheduled for June 26, 1969. Assuming a satisfactory bid is received and an award of contract is made by July 1, 1969, the completion time would be November 17, 1971.

The East Fremont Interchange Project is presently scheduled for bid opening August 21, 1969. To complete this project not later than the specified completion date of the superstructure contract, the completion time for this project should be not more than 800 calendar days.

To complete the entire Fremont complex, another contract must be let for construction of the West end of the West Fremont Interchange between N. W. 19th Avenue and N. W. 21st Avenue with connections to N. W. 21st Avenue.

C. G. SWENSON
Specifications Engineer

CGS/bdr
cc: F. B. Klaboe
D. J. Barbee

RECEIVED
MAY 7 1969
OFFICE OF
STATE HIGHWAY ENGINEER

		Cal. Days
WEST FREMONT		
Start Workday Count	May 9, 1969	
		236
	January 1, 1970	
		365
	January 1, 1971	
		249
	September 6, 1971	
		850
FREMONT SUPERSTRUCTURE		
Assumed Start Workday Count	July 11,1969	
		174
	January 1, 1970	
		365
	January 1, 1971	
		321
	November 17, 1971	
		860
EAST FREMONT		
Assumed Start Workday Count	September 8, 1969	
		114
	January 1, 1970	
		365
	January 1, 1971	
		321
	November 17, 1971	
		800

RECEIVED
MAY 19 1969

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

FOR FILE

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7310

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

Edwards

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301
DATE: April 30, 1969

In reply refer to: 08-35.6

SUBJECT: I-405-8( )303
East Fremont Interchange Structures

A

In view of the surprisingly high bids received on the West Fremont Interchange steel it appears desirable to investigate the East Fremont project to affect possible economics including packaging the project into smaller segments. We feel you should study and evaluate the entire situation and make your supporting recommendations to us.

Copy retained in my files 5.5.69

NOTED
TOM EDWARDS

RECEIVED
MAY 2 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
APR 21 1969
STATE GOVERNMENT

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: April 16, 1969

In reply refer to: 08-35.7

FOR Memorandum

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7310

FROM for R. E. Simpson, Division Engineer
Salem, Oregon

NOTED
R. L. PORTER

SUBJECT: Oregon Project I-405-8(4)303
East Fremont Interchange
File 36087, Union Pacific Railroad

This letter is to confirm your transmission and our receipt of eight copies of a plan elevation covering the East Fremont Bridge approaches over the Union Pacific Railroad property. This information was requested by our Washington office for purposes of Federal condemnation.

Our Washington office is making a slight change in use restrictions to insure that the property owner does not construct any buildings or conduct any activities within 5 feet of the supporting piers and footings of the highway structure. Please make an appropriate notation on your copy of the restriction. At such time that we receive the change we will forward your copy of the revised restriction.

4-21-69
Mahrt - Robb - Barbur

By Asst. State Hwy. Engr.
Litchfield

NOTED
F. B. KLABOE

RECEIVED
APR 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

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APR 9 - 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

I-405-8(32)304
7310-2

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

April 8, 1969

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: Core Drilling Agreement
E. Fremont Interchange Section
Stadium Freeway
Multnomah County
YOUR FILE: D 9010-22-17

Gentlemen:

This is in reply to your letter of March 28, 1969, wherein you ask if the State desires to extend this agreement beyond the present expiration date of July 26, 1969.

Inasmuch as we have completed our foundation exploration for the above-captioned project, it will not be necessary to extend this agreement.

I wish to thank you for the cooperation you have afforded us in this regard.

Very truly yours,

F. D. Morgan
Construction Engineer

ORIGINAL SIGNED BY
By: T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss
cc: Tom Edwards (w/copy of UPRR Letter)
F. B. Klaboe "
I. D. Merchant "
A. E. Johnson "
C. H. Maison "
Jack Sollis "

NOTED
TOM EDWARDS

RECEIVED
APR 8 1969
OFFICE OF
STATE HIGHWAY ENGINEER

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

MARCH 28, 1969

File Ref. D 9010 - 32 - 17

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

This is to advise that State's agreement with our Companies, Dept. No. 29272, covering drilling of test holes for approaches to the East Fremont Bridge over our Albina Yard in Portland, Oregon, will terminate July 26, 1969.

Will you please advise whether State desires to extend this license agreement and if so, let me know for what period of time.

Yours very truly,

W. G. Johnson

Routing

Morgan
Decker
Bond
Walker
Boehme
Jansen

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APR 2 1969
CONSTRUCTION DIVISION

Pease
Swan
Glenn
/ Litchfield
Gallagher
Stein

NOTED
J. M. CARTWRIGHT

RECEIVED
APR 1 - 1969
FOR FILING
1-405-8(02)3+4
7310

BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301
March 19, 1969

Mr. Ralph E. Phillips, Regional Administrator
Portland, Oregon

08-35.7

R. E. Simpson, Division Engineer
Salem, Oregon

Oregon Project 1-405-8(4)333
Fremont Bridge Section
Request for Federal Condemnation of Union Pacific Railroad
File 36007

Mr. Fletcher Krouse of the General Counsel's office requested the State to make one more attempt to secure a permit of entry from the Union Pacific Railroad for right of way needed for construction of the East Fremont Interchange. The State sent the Railroad a permit of entry that would be acceptable to the State Highway Department. The Railroad returned their version of a permit of entry that would be acceptable to the Railroad. Attached is a copy of the State's letter dated March 17, 1969 which indicates that the Railroad's permit of entry is unacceptable to the State Highway Department. In addition to the State's objections it should be noted that the agreement calls for the State to trade excess lands to the Railroad. We believe such an agreement should only be consummated as part of a final right of way settlement. Furthermore, the amount of credit for the trainmen's locker building is not clearly defined and should be set forth as required by Paragraph 4b(2) of PPM 30-3.

Our review indicates that the State has made every reasonable attempt to reach a settlement and secure a right of entry to the Railroad's property. It is our determination that they cannot secure the right of way with sufficient promptness to prevent a delay in the construction of the East Fremont Interchange. Therefore, we believe that there should be no further delay in filing a Federal condemnation case to secure right of entry by June 1, 1969. Failure to secure right of entry will probably delay opening of the Fremont Bridge which involves over $60 million worth of construction. Our letter of February 27, 1969 fully covered all the details of this case and contained our recommendation for initiation of Federal condemnation. If there is any reason why Federal condemnation cannot now be initiated we request that this office be immediately contacted.

Enclosure

cc:
Region (08-00.32)
Region (08-00.11)
OSHD (F. Cooper)

Mathies (2 cys)

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MAR 21 1969
OFFICE OF
STATE HIGHWAY ENGINEER

File copy

Fwp

RECEIVED
MAR 24 1969

OREGON STATE
HIGHWAY DEPARTMENT

I 405-8(22)304

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

7310

March 19, 1969

Director of Bureau of Public Roads
Dept. of Transportation
Federal Highway Administration
1717 "H" St.
Washington, D. C. 20591

Re: File R-36087
Union Pacific Railroad
Fremont Interchange
Sunset Interchange Section
Stadium Freeway
I 405-8 (4) 303

Dear Sir:

It has now become necessary that the State Highway Department turn the acquisition of this file over to the Department of Transportation, pursuant to the provisions of PPM 80-7. Under this acquisition the State wishes to acquire a permanent easement over six parcels of land from the railroad for the construction of the East Fremont Interchange.

ORS 374.020 states as follows: "No throughway shall be established upon or across the tracks, yards, station grounds or other operating properties of any common carrier railroad, or upon or across any industrial or business property served by railroad industrial trackage, or upon or across any property at such a location as to unduly interfere with the reasonable access of shippers, passengers or the public to railroad depots, team tracks or other facilities for receiving or delivering freight or passengers transported by railroad unless the State Highway Commission and the railroad agree on a proposed throughway project, or unless the Public Utility Commissioner finds by order, upon petition of the State Highway Commission, after notice to the railroad and hearing in accordance with his rules of practice, that public convenience and necessity so require."

The State Highway Department has complied with the provisions of the above statute to the extent that it has petitioned the Public Utilities Commissioner for a certificate of convenience and necessity. The State has recently secured an order from the Public Utilities Commissioner granting it a certificate of convenience and necessity. The railroad did not file an appeal and the appeal time has expired. However, the statutes and rules of the Public Utility Commissioner do not provide any cutoff time for the filing of a motion for a rehearing and the railroad has stated that they will file such a motion. This would hold up the filing of the condemnation action until after the time scheduled for the letting of the contract on this job. During the Public Utility Commission hearing the Railroad contested the jurisdiction of the PUC to conduct the hearing and grant a

certificate of Public Convenience and Necessity on the basis that the hearing should have been controlled by the provisions of ORS 763.010 to ORS 763.100. These statutes do not apply in a city of over 100,000 (ORS 763.015). Portland is over 100,000 in population and their argument is that ORS 374.020 applies only outside of cities over 100,000 population. Therefore, the Public Utility Commissioner does not have any jurisdiction to hear an application made pursuant to ORS 374.020 affecting property in the City of Portland. If the court sustained their theory, the State Highway Commission could not condemn Railroad property in the City of Portland for the construction of a Throughway.

Were the State to file a condemnation it would be necessary to affirmatively allege the statutory requirements enabling it to file the action. An allegation would have to be made that pursuant to ORS 374.020 a certificate of Public Convenience and Necessity had been issued after a hearing by the Public Utility Commissioner. The Railroad would have ten days in which to answer or file a dilatory pleading. It is anticipated the Railroad would thereafter file a demurrer and again raise the question of the jurisdiction of the PUC and thereby test authority of the State Highway Commission to condemn Railroad property in the City of Portland for a Throughway. The time involved in preparing memorandums and arguing the motion would be considerable. As mentioned above, an order of possession would be required and it is our opinion that the court would not grant an order specifying the date of possession until the matter raised under the demurrer had been determined. Even though the court were to rule in the State's favor on the demurrer, the Railroad could refuse to plead further and appeal the ruling to the Supreme Court. Assuming the advancement on docket, it would take several months to obtain a reversal by the court of lost resort. Therefore, it is our belief that any further action through the courts would be an exercise in futility, leaving the only possible method of securing possession of the property in time to award a contract on schedule for the Federal Government to condemn the property, and immediately thereafter requesting an order of possession as of June 1, 1969.

All actions of the Railroad for the past 15 months indicate that they would resist a condemnation action on behalf of the state to the fullest extent possible. At this date there is not sufficient time to initiate and conclude further proceedings through the state courts in an area where there are no precedents and still meet the required possession date for contract letting. Any such time used obviously cuts into the Policy & Procedure requirements for initiating action through the Federal courts.

We have offered the Railroad $213,000 which they have refused.

Because of the fact that the State needs possession by June 1, 1969, in order to award contracts as scheduled, it cannot acquire the easements in time to meet its contract schedule. This is the last acquisition necessary

in order to complete the connection between the Stadium Freeway and the Minnesota Freeway. The project is being let in four contracts. The bridge piers are being built now and the West interchange and bridge structure will be let in early 1969 and the East interchange in August of 1969. The total cost of these four projects will be approximately 70 million dollars. None of the facilities can be used until the East interchange is built and it cannot be built without the acquisition of this file.

The State wishes to acquire a permanent easement for the construction of the East Fremont Interchange and, also, is imposing use restrictions on the land over which it is acquiring the permanent easement. There will be no access to the structure from the adjacent land but there will not be any access control at ground level.

The State Highway Department will pay, at such time as it is required to by the Director of Bureau of Public Roads, an amount equal to 10% of the costs incurred in acquiring the permanent easement. The State will also accept title to the permanent easements and will maintain the structures constructed thereon.

In compliance with the requirements of PPM 80-7 paragraph 3a (2), please find enclosed eight copies of the legal description of each tract to be acquired.

In compliance with the requirements of paragraph 3a (3), please find enclosed eight copies of a map and also eight copies of an aerial photograph which has been blown up to scale and which shows the taking, and larger tract and all the improvements of the Railroad located thereon. I feel that this aerial photograph is by far the best way to indicate the location of the buildings, tracts and other structures of the Railroad as they are affected by our taking.

In conformity with the requirements of paragraph 3a (4), please find enclosed three copies each of two appraisals of the property, along with three copies of our review.

In compliance with the requirements of paragraph 3a (5), enclosed please find three copies of title evidence and, at this time, I believe this is all that is necessary that we furnish. Any additional title information which may be required will be furnished upon request.

In conformity with the requirements of 3a (6) (a), the information required by this section is included with the description.

In conformity with the requirements of 3a (6) (b), there are 19 files on the project. We have optioned six of them and filed condemnation cases on seven, four of which were settled and two of which have been tried. We have a Permit of Entry on three files. There

are two files on which we are seeking use restrictions outside the right of way line which have not as yet been closed. The above files total 18, leaving the subject file as number 19.

In conformity with the requirements of 3a (6) (c), this matter has been taken care of in the descriptions.

In conformity with the requirements of 3a (6) (d), this matter has been taken care of in the descriptions.

In conformity with the requirements of 3a (6) (e), there will be complete access control as to the structures. There will be no access control at ground level and the Railroad will be allowed to utilize the parcels over which we are acquiring the permanent easements, subject to the following restrictions: (Please note: These restrictions are different from those already approved by the Washington D. C. office and will need new approval.)

In conducting operations in the easement area, the owner, its successors, legal representatives and assigns shall not:

1. Construct any buildings on structures that do not meet the Building Codes of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

   a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2; except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

   b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

   c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes, vapor or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the owner's property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

All the necessary information for the condemnation of the easement is contained herein or will accompany this letter.

The State Highway Department hereby formally requests the Department of Transportation to acquire the necessary interest in lands and possession of the property as hereinabove set forth.

Very truly yours,

Original signed
Forrest Cooper

FORREST COOPER
State Highway Engineer

cc R. L. Porter
F. B. Klaboe
Victor D. Wolfe
George Rohde
Frank McKinney
T. W. Litchfield
Jack Sollis

(Letter prepared by Legal Division)
Sollis mailed 3-24-69

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MAR 6 - 1969
FOR [illegible]
I-405-6(4)304
7310

NOTED
FORREST COOPER

BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

February 27, 1969

Mr. Ralph M. Phillips, Regional Administrator
Portland, Oregon

Original signed by
R. E. Simpson
Division Engineer

88-15.7/411.21

NOTED
R. L. FOSTER

R. E. Simpson, Division Engineer
Salem, Oregon

Oregon Project I-405-6(4)304
Fremont Bridge Section
Request for Federal Condemnation of Union Pacific Railroad, File 36987

The Oregon State Highway Department is requesting Federal condemnation of the Oregon-Washington Railroad and Navigation Company (Union Pacific Railroad Company). The State is unable to secure right of entry to the Railroad's property with sufficient promptness to prevent a delay in the construction of the East Fremont Interchange which is scheduled for bid opening on August 21, 1969. In accordance with Paragraph 4 of PPM 80-7 we offer the following comments and recommendations:

1. The importance of securing a right of entry by June 1, 1969, which will allow clearance of improvements by bid opening, cannot be over emphasized. At the present time the piers for the Fremont Bridge are under construction. The East Fremont Interchange at an estimated cost of $21,000,000 is scheduled for bid opening on April 17, 1969. The Fremont Bridge Superstructure at an estimated cost of $22,400,000 is scheduled for bid opening on June 24, 1969. The East Fremont Interchange at an estimated cost of $12,300,000 is scheduled for bid opening August 21, 1969. The Fremont Bridge and the East Fremont Interchange is the last link connecting Interstate 405 and Interstate 5. Federal and State funds amounting to $120 million are involved in Interstate 405 which includes the Fremont Bridge.

The justification for Federal condemnation is contained in two letters dated February 6 and 25, 1969 signed by State Highway Engineer Forrest Cooper. We have reviewed the justification and concur with the State's position that it cannot acquire the land with sufficient promptness. Our study of this case indicates that the State could secure a permit of entry only by acceding to the Railroad's demands for compensation and consideration beyond that contemplated by Federal-aid procedures. The State started monetary negotiations with the Railroad in April of 1966. Attempts to file a State condemnation action would meet the delaying tactics outlined in Mr. Cooper's letters. It is anticipated that the Railroad will attempt to delay Federal entry by requesting time to adjust their facilities. Therefore, this case should be filed immediately in order to secure timely use of the right of way by June 1, 1969.

(more)

2. Public Roads authorized the State to commence right of way acquisition on October 31, 1963. The project was advanced to Stage 2 program status on February 27, 1962. The project agreement contains the provisions required by Section 108a, 108b and 111 of 23 U.S.C.

3. The right of way shown on the enclosed plans is necessary for completion of the Fremont Bridge which is the last link connecting Interstate 405 with Interstate 5.

4. The specific interest in lands to be acquired is a permanent easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary and related facilities upon and across the real property of the Union Pacific Railroad. There will be complete control of access to the elevated highway structures. The Railroad will retain the right to go underneath the elevated structures as well as to utilize the area as set out in the attached permanent easement.

5. The State plans to acquire a permanent easement as set forth in the attached easements and descriptions. The title report does not indicate that there are any outstanding interests such as mineral or utility easements. In the event that there were any utility easements, the State would deal separately with the involved utility companies.

6. The legal description, permanent easement, title data, right of way map and aerial photograph of the larger tract is considered adequate. Due to the fact that the acquisition is from a larger tract which involves switching yards and other related facilities of the Railroad, both the State and this office believe that the larger tract can be better shown by the enclosed aerial photography. The right of way is on new alignment.

It should be noted that the proposed permanent easement was previously reviewed by our Washington office and received written approval. Since that approval there has been several minor changes in the use restrictions to comply with city building codes. This was discussed with Mr. E. J. Zelasko of the Office of Right of Way and Location and it was his suggestion that the changed easement be forwarded at the time the case was submitted for Federal condemnation. We have reviewed the changes and are in agreement with the use restrictions.

We have reviewed the State's appraisals and review appraisal and concur that $213,000 represents the fair market value of the acquisition. The appraisals were prepared in accordance with the Federal rules of

(more)

evidence as to valuation. It should be noted that a before appraisal was not made of the larger tract which involves the entire Union Pacific Railroad switching yard and other related facilities. This procedure was followed because the State's railroad consultant, Mr. J. W. Diffendarfer, has indicated that there are no operational damages. This matter has previously been discussed with Messrs. Fletcher Krause and E. J. Zalaske of the Washington office.

7. The State has tendered the Railroad a written offer of $213,000 for the needed right of way in accordance with their review appraisal. Negotiations have been handled by the State's Railroad and Utility Attorney Jack L. Sollis. The Railroad has taken the position that the three building improvements to be acquired are operating property. Our Washington office and this office have concurred that two of the buildings are operating property but the National Carloading warehouse was determined to be nonoperating property. The Railroad's position is that the buildings should be adjusted with no credit to the project as required by Paragraph 4h of PPM 30-3. Due to the fact that agreement cannot be reached on these points the appraisals and offer are on the basis of the fair market value of acquiring the buildings. It is our observation that the Railroad's negotiations have been of a delaying nature in an effort to secure fulfillment of their demands by placing the State in the untenable position of not being able to secure prompt right of entry in order to let a construction contract.

The Railroad has also asked for a commitment from the State to trade them certain excess lands which have been acquired from other property owners in the area. The State is willing to take such action as part of a final settlement but not as part of a partial settlement. These parcels of land represent excellent bargaining tools for any negotiations that might take place after the filing of the case. The State's Railroad Attorney, Mr. Jack Sollis, will be willing to give the Federal attorneys his full cooperation in going over the many ramifications of this complex case.

8. It is our understanding that under Federal condemnation procedures the court deposit is 100 percent of fair market value. The court deposit should be $213,000 which is the fair market value as set forth in the State's review appraisal. In recommending this amount of deposit, the three buildings within the taking have been considered on the basis of their depreciated value. Any future negotiated settlement that might treat any improvements as operating property should consider that the deposit was on the basis of fair market value.

The State has developed their planning sufficiently to satisfy us as to the effect of the proposed construction upon adjacent property and

(more)

the treatment of access control in the area of a Federal acquisition. Our Metropolitan Area Engineer will maintain and supervise lands to be acquired and held in the name of the United States pending transfer of title and jurisdiction to the State.

Enclosures
1. OSHD ltrs. 2-6 and 2-25-69
2. Legal Description (8 cys)
   Permanent Easement and Use Restrictions (8 cys)
3. Right of Way Map (8 cys)
   Aerial Mosaic (8 cys)
4. Appraisal (3 cys)
   Review Appraisal (3 cys)
   Differential Report (3 cys)
5. Title Report (3 cys)
6. Portland Building Code

cc:
Region (08-00.11)
Region (08-00.32)
OSHD (Forrest Cooper)
Mathias (2 cys)

RECEIVED
FEB 27 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
FEB 25 1969
FOR FILING

I-405-8(22)304
7310

February 25, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon 97310

Dear Mr. Simpson:

Re: File 2-36087
Union Pacific Railroad
Fremont Interchange
Sunset Interchange Section
Stadium Freeway
I 405-8 (4) 303

As a supplement to my letter of February 6, 1969, and to further explain the reasons why it is impossible for the State of Oregon to obtain possession of the property owned by the Union Pacific Railroad in time to award our contract in the area scheduled for August of this year, the following is offered:

Were the State to immediately file a condemnation action, the Railroad would, in our opinion, resist possession, making it necessary to secure an order of the court designating the date on which entry could be made on the property. Inasmuch as two or possibly three piers will be placed where the National Car Loading building is presently located, it would have to be removed prior to construction. This would require the construction of a new building or other facilities to continue operations and undoubtedly the court would allow the Railroad several months to accomplish the new construction. Therefore, any order of possession would not entitle the State to possession until after at least three to five months from now, which is the minimum time remaining to obtain possession in order to award the contract as scheduled.

The State has obtained a certificate of Public Convenience and Necessity from the Public Utility Commissioner pursuant to the provisions of ORS 374.020. During the Public Utility Commission hearing the Railroad contested the jurisdiction of the PUC to conduct the hearing and grant a certificate of Public Convenience and Necessity on the basis that the hearing should have been controlled by the provisions of ORS 763.010 to ORS 763.100. These statutes do not apply in a city of over 100,000 (ORS 763.015). Portland is over 100,000 in population and its argument is that ORS 374.020 applies only outside of cities over 100,000 population. Therefore, the Public Utility Commissioner does not have any jurisdiction to hear an application made pursuant to ORS 374.020 affecting property in the city of Portland. If the court sustained their theory, the State Highway Commission could not condemn Railroad property in the city of Portland for the construction of a throughway.

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All actions of the Railroad for the past 15 months indicate that it would resist a condemnation action on behalf of the State to the fullest extent possible. At this date, there is not sufficient time to initiate and conclude further proceedings through the state courts in an area where there are no precedents and still meet the required possession date for contract letting. Any such time used obviously cuts into the Policy & Procedure requirements for initiating action through the Federal courts.

We have offered the Railroad $213,000 which it has refused.

Very truly yours,

Forrest Cooper
State Highway Engineer

JLS:krk lms
bc: R. L. Porter
F. B. Klaboe
Victor D. Wolfe
G. E. Rohde
T. W. Litchfield

RECEIVED
FEB 17 1969
FOR [illegible]

OREGON STATE HIGHWAY DEPARTMENT

I 405-A(22)304
7310

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

February 13, 1969

Mr. L. James Bergmann
General Attorney
Union Pacific Railroad Company
727 Pittock Block
Portland, Oregon 97205

Re: Your file 9001-32-14-A
7370
Our file R-36087
Union Pacific Railroad
Fremont Bridge Section
Stadium Freeway

Dear Mr. Bergmann:

This will acknowledge receipt of your letter of January 15, 1969, relating to the above-captioned matter.

*7297

I can appreciate your feelings as regards the yardmen's locker building and your interpretation of PPM 30-3. However, you must realize that we do not have the option of interpreting PPM 30-3 but we must accept the interpretation given it by the Department of Transportation and their interpretation requires a contribution by the Railroad of approximately $12,000 for the construction of a new yardmen's locker building and it also has been interpreted to require the construction of a new building where the moving or relocating of an existing building to be more expensive than the construction of a new one. Therefore, our position on this particular item must remain the same.

NOTED
R L PORTER

As regards the street vacation and the sales of property in the area, I am sure that we would be willing to make a definite commitment on these matters if all the other matters can be resolved.

I must advise you at this time that the matter has been referred to the Federal Government for condemnation. However, if you still believe that it is possible to work out the problems and have a meeting of the minds as regards a permit of entry, we would be most happy to review the permit of entry that you have drafted.

Very truly yours,

G. E. ROHDE
Chief Counsel

By

JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:phm

cc: R. L. Porter
F. B. Klaboe
G. E. Rohde
F. C. McKinney
C. Mathias

RECEIVED
FEB 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
FEB 10 1969

File copy

I 405-8(4)304
7310

Copy 7218

February 6, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Re: File R-36087
Union Pacific Railroad
Fremont Interchange
Sunset Interchange Section
Stadium Freeway
I 405-8 (4) 303

Dear Mr. Simpson:

It has now become necessary that the State Highway Department turn the acquisition of this file over to the Department of Transportation, pursuant to the provisions of PPM 80-7. Under this acquisition the State wishes to acquire a permanent easement over six parcels of land from the railroad for the construction of the East Fremont Interchange.

ORS 374.020 states as follows: "No throughway shall be established upon or across the tracks, yards, station grounds or other operating properties of any common carrier railroad, or upon or across any industrial or business property served by railroad industrial trackage, or upon or across any property at such a location as to unduly interfere with the reasonable access of shippers, passengers or the public to railroad depots, team tracks or other facilities for receiving or delivering freight or passengers transported by railroad unless the State Highway Commission and the railroad agree on a proposed throughway project, or unless the Public Utility Commissioner finds by order, upon petition of the State Highway Commission, after notice to the railroad and hearing in accordance with his rules of practice, that public convenience and necessity so require."

The State Highway Department has complied with the provisions of the above statute to the extent that it has petitioned the Public Utilities Commissioner for a certificate of convenience and necessity. The State has recently secured an order from the Public Utilities Commissioner granting it a certificate of convenience and necessity. The railroad did not file an appeal and the appeal time has expired. However, the statutes and rules of the Public Utility Commissioner do not provide any cutoff time for the filing of a motion for a

rehearing and the railroad has stated that they will file such a motion. This would hold up the filing of the condemnation action until after the time scheduled for the letting of the contract on this job.

Because of the fact that the State needs possession by June 1, 1969, in order to award contracts as scheduled, it cannot acquire the easements in time to meet its contract schedule. This is the last acquisition necessary in order to complete the connection between the Stadium Freeway and the Minnesota Freeway. The project is being let in four contracts. The bridge piers are being built now and the West interchange and bridge structure will be let in early 1969 and the East interchange in August of 1969. The total cost of these four projects will be approximately 70 million dollars. None of the facilities can be used until the East interchange is built and it cannot be built without the acquisition of this file.

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The State Highway Department will pay, at such time as it is required to by the Director of Bureau of Public Roads, an amount equal to 10% of the costs incurred in acquiring the permanent easement. The State will also accept title to the permanent easements and will maintain the structures constructed thereon.

In compliance with the requirements of PPM-80-7 paragraph 3a.(2), please find enclosed eight copies of the legal description of each tract to be acquired.

In compliance with the requirements of paragraph 3a.(3), please find enclosed eight copies of a map and also eight copies of an aerial photograph which has been blown up to scale and which shows the taking, and larger tract and all the improvements of the railroad located thereon. I feel that this aerial photograph is by far the best way to indicate the location of the buildings, tracts and other structures of the railroad as they are affected by our taking.

In conformity with the requirements of paragraph 3a.(4), please find enclosed three copies each of two appraisals of the property, along with three copies of our review.

In compliance with the requirements of paragraph 3a.(5), enclosed please find three copies of title evidence and, at this time, I believe this is all that is necessary that we furnish. Any additional title information which may be required will be furnished upon request.

In conformity with the requirements of 3a(6) (a); the information required by this section is included with the description.

In conformity with the requirements of 3a.(6) (b), there are 19 files on the project. We have optioned six of them and filed condemnation cases on seven, four of which were settled and two of which have been tried. We have a permit of entry on three files. There are two files on which we are seeking use restrictions outside the right of way line which have not as yet been closed. The above files total 18, leaving the subject file as number 19.

In conformity with the requirements of 3a.(6) (c), this matter has been taken care of in the descriptions.

In conformity with the requirements of 3a.(6) (d), this matter has been taken care of in the descriptions.

In conformity with the requirements of 3a.(6) (e), there will be complete access control as to the structures. There will be no access control at ground level and the railroad will be allowed to utilize the parcels over which we are acquiring the permanent easements, subject to the following restrictions: (Please note: these restrictions are different from those already approved by the Washington D. C. office and will need new approval.)

In conducting operations in the easement area, the owner, its successors, legal representatives and assigns shall not:

1. Construct any buildings on structures that do not meet the Building Codes of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

   a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2; except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

   b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes vaopr or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the owner's property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

All the necessary information for the condemnation of the easement is contained herein or will accompany this letter.

The State Highway Department hereby formally requests the Department of Transportation to acquire the necessary interest in lands and possession of the property as hereinabove set forth.

Very truly yours,

FORREST COOPER
State Highway Engineer

FC:djg -JLS
Encls

RECEIVED
JAN 10 1969

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

NOTED
R. L. PORTER

January 9, 1969

Mr. L. James Bergman
General Attorney
Union Pacific Railroad
727 Pittock Block
Portland, Oregon 97205

Re: Your file 9001-32-14-A 7370
Our file R-36087
Union Pacific Railroad
Freemont Bridge Section
Stadium Freeway

Dear Mr. Bergman:

Your letter of December 20, 1968, containing counter-proposals to our letter of November 18, 1968, has been received and considered.

In view of the urgency of establishing the right of the State to proceed with this multimillion dollar bridge project and provide the connecting link to the freeway system in Portland, the Department cannot recommend your counterproposals. To accept your condition that the permit of entry be without prejudice to continue your proceedings before the Public Utility Commissioner and subsequent appeal would, in our opinion, so confuse the legal rights of the State to proceed as to render its position untenable.

Nor would we be willing to recommend binding the Commission to selling other land and vacating streets as a part of the permit of entry. We would, of course, be willing to continue discussions of these matters as a part of any settlement which could be reached for acquiring the needed easement rights.

I must therefore request your reconsideration of our original proposal contained in our letter of November 18, 1968. In so doing I feel obligated to call to your attention an item which may have not been entirely clear. In

our previous letter it was stated that "we will pay for the cost of constructing a comparable yardmen's locker building and also the cost of relocating the clubhouse building within the provisions of PPM 30-3." You will note that under paragraph 4.h(2) of the aforementioned PPM that a credit is to be given the project in the amount of depreciation accrued against the structure being replaced, plus the value of materials as recovered from the structure. Since the yardmen's locker building is to be reconstructed at a different location, the accrued depreciation and value of materials to be recovered has been estimated by the State appraisers at approximately $12,000. This sum, under the PPM, would have to be allowed as a credit against the cost of reconstruction of this building.

I would appreciate your reconsideration of our proposal of November 18, 1968, in light of the above, and a reply by January 23, 1969, as to your decision. As indicated we must have this early determination inasmuch as we must initiate action now to assure ourselves that the contemplated project can proceed as scheduled.

Very truly yours,

G. E. ROHDE
Chief Counsel

GER:ks

bcc: R. L. Porter
F. B. Klaboe
R. E. Simpson
Jack Sollis

RECEIVED
JAN 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 27 1968
FOR FILING

Const
Project
Maint - Portland

For. Br. Sec

NOTED
R. L. PORTER

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
December 24, 1968

To: Mr. Jack Sollis
Staff Attorney

SUBJECT: R-36087 - Fremont Interchange
Marquam Bridge Section
Stadium Freeway

Office

In your absence I attended a meeting which was previously scheduled with representation of the Bureau of Public Roads and Mr. Klaboe relative to the negotiations with the Union Pacific Railway on the above subject project and file.

The meeting was held in Mr. Klaboe's office this morning at 10 o'clock. In attendance were Division Engineer Simpson, Mr. Brooke and Mr. Mathias of his office.

Discussion was relative to the State's letter of offer, the alternative procedure in our letter of November 18, 1968 and the Union Pacific's reply of December 20.

One matter involved the yardmen's locker building which the State agreed to rebuild because it apparently cannot be moved due to the fact it is a concrete block type structure that cannot in a practical manner be moved as is. Apparently it was agreed the letter of November 18 was technically correct in that the letter said the State would "pay the cost of constructing a comparable building - - within the provisions of FPM 30-3".

However the FPM is written to indicate that in such event the benefits from the new construction shall be allowed as a credit. It seems these credits which should be recovered from the Railroad have been computed as some $12,800. It was thought that this feature should be made specifically known to the Railroad in that the State must perforce proceed in such instances only in accordance with the FPM's which it is required to work under.

It was generally conceived that any agreement at this stage (permit of entry) should not be tied to the State conveying land it owns, or agreeing to cooperate in vacation proceedings, such concessions should only

be made as a part of a general settlement of the case. This can be negotiated as well after a permit of entry or filing a condemnation case as before.

The third feature is the requirement that the Railroad may, without prejudice, continue its proceedings before the PUC and appeal therefrom if it desires. This feature leaves the legal picture so up in the air that it would not be possible to agree to the same. No one could, under such circumstance, predict what the future outcome of actual construction or State condemnation would be.

The agreed step to be taken at this time is to notify the Railroad that due to scheduling and federal requirements we must have a permit of entry, free of conditions, in our hands at an early date (2 weeks or so) or we must certify for BPR condemnation. This conclusion was also cleared with Mr. Porter with thom the matter was discussed after the close of the meeting with BPR representatives.

The Bureau people conceive that negotiations should be from a strong position and that federal condemnation is strongest position that can be taken. They are also confident that such will give the greatest assurance of being able to let a construction contract on schedule.

Please prepare the appropriate letter.

G. E. RONDE
Chief Counsel

GER:hg
cc Mr. R. L. Porter
Mr. F. B. Klaboe
Mr. F. C. McKinney
Mr. D. H. Moehring

RECEIVED
DEC 26 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 26 1968
FOR FILING

Const
Proj.
Muni-Port

RANDALL B. KESTER
GENERAL SOLICITOR
SAMUEL B. STEWART
JOHN F. WEISSER, JR.
JAMES BERGMANN
GENERAL ATTORNEYS
ALLARD J. HEITKEMPER
CHARLES N. ISAAK
ATTORNEYS

Trans. Br. Sec

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
LAW DEPARTMENT

December 20, 1968

727 PITTOCK BLOCK
PORTLAND, OREGON 97205

227-7771

9001-32-14-A
7370

Mr. G. E. Rohde
Chief Counsel
Oregon State Highway Commission
Salem, Oregon 97310

re: Your file No. R-36087 - Fremont Interchange
Marquam Bridge Section - Stadium Freeway

Dear Mr. Rohde:

This will acknowledge receipt of your formal letter offer dated November 18, 1968, together with transmittal letter of the same date, making an offer of compromise in connection with the above captioned matter.

The Railroad will grant the State a permit of entry onto our property at Albina, Portland, Oregon, in connection with the construction of east side approaches to the Fremont Bridge as follows:

1. To relocate the Railroad's clubhouse building and to construct a comparable yardmen's locker building; and

2. To construct the elevated highway structures and supporting bents and other necessary and related facilities captioned above.

The permit of entry for item 1 shall be effective upon execution thereof, and the permit of entry for item 2 shall be effective June 1, 1969.

NOTED
F. B. KLABOE

In the permit of entry, the State will agree (1) to sell to the Railroad, subject to easement for the highway structures, all that portion of Block 1, John Brendle's Addition to the Town of Albina, City of Portland, Multnomah County, Oregon, owned by the State, for an amount to be agreed upon, but not to exceed an amount per square foot, equal to the difference between the value of the land and the value of your easement for the overcrossing structure, and (2) to cooperate with the Railroad in any petition by the Railroad for vacation of public streets and alleyways in the vicinity of the overcrossing structure.

The permit of entry and supporting exhibit prints and engineering estimates are being prepared, and we should be in a position to furnish them within thirty days. The permit of entry is being patterned after our standard highway agreement provisions, except that, of course, no easements will be granted, and it will be modified to incorporate the relocation and construction of the two buildings referred to and the relocation of trackage and related facilities in North Loring Street.

The permit of entry shall be without prejudice to our rights in any proceeding before the Public Utility Commissioner of Oregon. The Railroad specifically reserves the right to continue its efforts to secure a more acceptable order in Oregon Public Utility Commissioner Cause No. SXF-430, to appeal from the present order, and to file any further application or petition with the Public Utility Commissioner or other regulatory body which in the judgment of the Railroad is necessary or appropriate to protect the interests of the Railroad.

We are not in a position to accept your offer of $167,460 for payment of the easements and value of the National Carloading building, and it is understood that if a sum cannot be agreed upon as compensation for the property to be taken, you will commence an action in the Circuit Court of Multnomah County to determine the value of said property.

Very truly yours,
RANDALL B. KESTER

By L. James Bergmann

LJB:mlc

RECEIVED
DEC 23 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 12 1969
FOR FILE

I-405-8(10)-4
7310

November 18, 1968

Oregon-Washington Railroad
& Navigation Company
Pittock Block
Portland, Oregon

Union Pacific Railroad Company
Pittock Block
Portland, Oregon

Re: Our File No. R-36087
Fremont Interchange-
Marquam Bridge Section
Stadium Freeway

Gentlemen:

Enclosed herewith is a formal letter of offer from the Oregon State Highway Commission for easements across six parcels of land and the purchase of three buildings located within the easement area described in said letter. The formal letter is tendered since we are going to request that condemnation proceedings be commenced by the Federal Government.

The three buildings concerned are the National Carloading building, the railroad clubhouse and the yardmen's locker building. Under no circumstances, as we presently view this matter, can we reimburse the Railroad for the relocation of the National Carloading building, as it is not considered to be operating property.

As a possible compromise we are willing to recommend to the Commission that, if you will issue a permit of entry acceptable to the State giving the State possession of the six parcels of land, with the above-mentioned buildings vacant on June 1, 1969, and consenting to the State commencing a condemnation proceeding in the Circuit Court of Multnomah County to determine the value of the easement and the National Carloading building, we will pay for the cost of constructing a comparable yardmen's locker building and also the cost of relocating the clubhouse building within the provisions of PPM-30-3. Under the above procedure we would also recommend to the

Commission the payment to you of the sum of $167,460.00 as compensation for the easements and the National Carloading building.

I should also advise that when the Federal Government commences a condemnation proceeding to acquire the buildings and easements, they will seek a court order granting the State possession of the buildings and easements on June 1, 1969. It would then be your responsibility to provide substitute buildings to replace those within the taking.

If you have questions regarding this proposed compromise or there are any points that are not clear, please do not hesitate to contact me.

Very truly yours,

G. E. ROHDE
Chief Counsel

GER:JLS:as

File

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

November 18, 1968

CERTIFIED MAIL

Oregon-Washington Railroad
& Navigation Company
Pittock Block
Portland, Oregon

Union Pacific Railroad Company
Pittock Block
Portland, Oregon

Western Transportation Co.
550 N. W. Front Avenue
Portland, Oregon

National Carloading Corporation
5550 N. Basin
Portland, Oregon

City Bank Farmers Trust Company
399 Park Avenue
New York, New York 10022

File No. R-36087
Fremont Interchange-
Marquam Bridge Section
Stadium Freeway

Gentlemen:

The State Highway Commission has found it necessary to acquire a permanent easement across the following described real property so that the Fremont Interchange-Marquam Bridge Section of the Stadium Freeway may be properly located, constructed and maintained. The easement and real property across which this easement is required is as follows, to wit:

> A permanent easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary and related facilities upon and across the following described parcels of real property:

Parcel No. 1:

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the center line of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which center line is described as follows:

Beginning at Engineer's center line Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the center line of N. Mississippi Avenue with the center line of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36° 39' East) 440 feet; thence North 31° 09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34° 54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88° 31' 30" East) 1308.67 feet to Engineer's center line Station "SW" 326+63.33.

ALSO that portion of said Lots 4 and 5, lying Southeasterly of said connection center line.

Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 8,650 square feet, more or less.

Parcel No. 2:

A parcel of land lying in Lot 7, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the center line of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection center line is described as follows:

Beginning at Engineer's center line Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the center line of N. Mississippi Avenue with the center line of N. Stanton Street; thence on an 11,459.16 feet radius curve left (the long chord of which bears South 44° 26' West) 913.33 feet; thence South 42° 09' West, 362.16 feet to Engineer's center line Station "WE" 343+61.92.

ALSO that portion of said Lot 7, lying Northwesterly of said center line.

Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 5,260 square feet, more or less.

Parcel No. 3:

A parcel of land lying in Lots 1 and 2, Block 2, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the center line of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection center line is described in Parcel No. 2.

ALSO that portion of said Lot 1, lying Northwesterly of said center line.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

Parcel No. 4:

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

Parcel No. 5:

A parcel of land lying in the NW¼ of Section 27, Township 1 North, Range 1 East, W. M., Multnomah County, Oregon; the said parcel being that portion of said NW¼ lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the center line of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway which connection center line is described in Parcel No. 1 and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the center line of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection center line is described in Parcel No. 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

Parcel No. 6:

A parcel of land lying in Block 74, ALBINA in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet.

EASEMENT AREA
WHICH IS THE LAND

In conducting your operations in the easement area, you, your successors, legal representatives and assigns shall not:

1. Construct any buildings or structures that do not meet the Building Codes of the City of Portland in effect, as revised on August 13, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

   a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2; except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

   b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the building.

   c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be

one story in determining the basic allowable area for buildings one story in height as set forth in Table No. 5-C of said Building Code.

2. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

3. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

4. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

5. Allow unreasonably objectionable smoke, fumes vapor or odors to rise from the easement area above the grade line of the highway.

6. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and your property adjacent thereto.

7. Build any buildings or structures above the highway structures constructed on or above the easement area.

I have been authorized by the State Highway Commission to offer to you, and do hereby offer and tender to you, the sum of $213,000.00 for a conveyance of the said easement rights to the State of Oregon, by and through its State Highway Commission, free and clear of all taxes, liens and encumbrances, including the proportionate part of the taxes for the fiscal year during which the State takes possession of or receives title to said easement rights, whichever is the earlier.

Without your immediate acceptance of this offer, I have been instructed to request such proceedings as may be necessary to acquire the above easement rights. The time and services of the right of way agent who has negotiated with respect to the State's acquisition will continue to be available toward arranging the details of transaction should you desire to conclude a settlement on the basis of this offer. I sincerely hope that such a settlement may yet be reached so that I will not have to request legal action.

Yours very truly,

G. E. ROHDE
Chief Counsel

ALR:al

RECEIVED
FOR FILE

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: October 23, 1968

In reply refer to: 08-35.7/410.3

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(4)303
Fremont ~~Interchange~~ Section
File 36087, Union Pacific Railroad

Chief Counsel G. E. Rohde's letter of October 10, 1968 forwarded for our approval a change in the proposed use restrictions covering the right of way of limited vertical dimension to be secured from the Union Pacific Railroad. The submission relates the construction of buildings within the right of way to the Building Codes of the City of Portland. This represents a change from the original submission which was approved by our Washington office. While this change must be approved in Washington, we believe it can be submitted at the time the Union Pacific file is forwarded for possible Federal condemnation. We do not anticipate any problem in securing approval of the proposed changes in the use restrictions. Our review indicates that the use restrictions should include safeguards to prevent unreasonably objectionable smoke, fumes, vapor or odors to rise above the grade line of the highway. Please refer to item 9 in attachment 3 of PPM 80-5. Inclusion of such a protective clause is not intended to restrict in any way the railroad's present use of the property but to provide safeguards in case any buildings are constructed under the bridge structure as permitted by the use restrictions.

NOTED
F. B. KLABOE

RECEIVED
DEC 27 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 24 1968
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
DEC 27 1968
FOR FILING

Const
Projects
Munic Portland
Fwa. Br. Sec

October 10, 1968

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Re: File R-36087
Union Pacific Railroad
Fremont Interchange
Sunset Interchange Section
Stadium Freeway
I 405-8 (4) 303

Dear Mr. Simpson:

We have previously requested and received approval of use restrictions on the above file. However, since receiving approval, we have discussed the matter with the City Fire Marshal and, at his suggestion, have reworked the use restrictions to tie them into the Building Code of the City of Portland. Therefore, I am now submitting a new set of use restrictions on which I request approval.

Along with three copies of this letter, I am also sending three copies of the Building Code of the City of Portland, to which the use restrictions are tied.

The use restrictions are as follows:

In conducting operations in the easement area, the owner, its successors, legal representatives and assigns shall not:

1. Construct any buildings on structures that do not meet the Building Codes of the City of Portland in effect, as revised on September 30, 1968. Provided, however, that the following changes and restrictions on the above Building Code shall affect the parcels hereinabove described:

a. All types of occupancies as set out in said Building Code will be allowed within the exclusive easement area, except group E-1, 2 and 3; F-1, F-2 except that office buildings with an occupancy load of 30 or less, undertaking parlors, municipal police and fire stations will be allowed; F-3 and F-4.

b. Buildings of Type I and II construction may be constructed in the exclusive easement area so long as there is 20 feet of clear space between the lowest part of the bridge structure and the highest part of the buildings.

c. Buildings of Type III and IV construction may be constructed in the exclusive easement area, provided the top of the building does not exceed 45 feet in height and the building is not more than one story. Any building of Type III or IV construction shall be considered to be one story in height in determining the basic allowable area for buildings as set forth in Table No. 5-C of said Building Code.

2. Interfere with any of the piers, decks, light or drainage facilities of the highway facilities.

3. Manufacture or store on the ground or in buildings any flammable, volatile or explosive substances.

4. Have any rights of access of any nature between the roadways of the highway structures constructed on the easement area and the owner's property adjacent thereto.

5. Build any buildings or structures above the highway structures constructed on or above the easement area.

Very truly yours,

G. E. ROHDE
Chief Counsel

GER:JLS:phm

Enclosures

9-27-68

Order #44864

BEFORE THE PUBLIC UTILITY COMMISSIONER

OF OREGON

SXF 430

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon.	ORDER

The above-entitled matter was duly heard on June 3, 1968, before Frank Stinemeyer, Examiner for the Commissioner. The following appearances are of record herein:

For Petitioner:

Jack L. Sollis
Assistant Attorney General
Salem, Oregon
In behalf of the Oregon State Highway Department

For Respondents:

L. James Bergman, Attorney
Portland, Oregon
In behalf of:
Union Pacific Railroad Company
Oregon-Washington Railroad & Navigation Company, Union Pacific Railroad Company (as Lessee)
National Carloading Corporation
Western Transportation Co., Inc.
Republic Carloading & Distributing Co.

For Commissioner:

Thomas Y. Higashi, Assistant
Attorney General, of Counsel
for the Public Utility Commissioner of Oregon
Salem, Oregon

An original petition was filed by petitioner on November 14, 1967. Subsequently certain action was taken with respect to the pleadings and disposition thereof by action of the parties or Commissioner. An amended petition was filed on December 28, 1967, and thereafter on January 19, 1968, the second amended petition was filed.

The second amended petition sets forth with particularity the parcels of land and states the nature of interest in lands which petitioner asserts to be the subject matter of the proceeding under said petition. The prayer of the petition requests that Commissioner enter an order finding that the section of the specified throughway described in the caption hereof, which petitioner seeks to establish over property of the respondents, involving the construction of supporting structures and the taking of land and interests in land are required by public convenience and necessity. The petition also asserts that seven categories of restrictions specified must be imposed and are required for the establishment of the described section of freeway proposed. By amendment during the hearing petitioner withdrew its request for consideration by Commissioner of any of such restrictions sought in the petition.

An answer was filed on behalf of the railroad respondents. It admits petitioner is proposing to construct the subject section of throughway and that petitioner filed the petition under authority only of the following statutes: ORS 366.205; 374.015 (3) and 374.020. It admits that neither a grade or undercrossing would be feasible for construction proposed by reason of public and railroad safety considerations. It asserts that the project construction and operation will interfere with the railroad operations and operating properties, being part of the property described on exhibits attached to petition. Also it asserts that non-railroad respondents appearing herein are parties affected by the proposal.

The answer asks that the petition be dismissed or, as alternative relief, that five conditions be imposed by Commissioner before issuance of an order of approval or issuance of a certificate of convenience and necessity.

The first condition sought by respondents relates to safeguards requested in the design and operation of the structures and this condition petitioner agrees is one proper for inclusion in Commissioner's order. The second, third, fourth and part of the fifth conditions are each asserted so that no certificate could be issued until petitioner is ordered to relocate, reconstruct and fireproof certain railroad and railroad-leased structures near or under the overstructures proposed. Petitioner contests Commissioner's power to impose or the propriety of imposition of such latter conditions. Certain other conditions demanded by respondents relating to safety practices to be observed during construction and to assure good and workmanlike engineering and construction standards are acceptable to petitioner, who offered, during hearing, to stipulate in conformity therewith.

Notice of the hearing, and notice of continuance and orders resetting the matter were duly served upon respondents and the other persons designated in the answer as being parties affected by the proposed construction, namely National Carloading Corporation, Western Transportation Co., Inc., and Republic Carloading & Distributing Co., Inc. Notice was also served on the Mayor of the City of Portland, upon the City Auditor and upon the Board of County Commissioners of Multnomah County, Oregon.

At the commencement of the hearing the parties and examiner conferred in an informal manner in an endeavor to separate noncontested issues from those in dispute. An opportunity was then afforded parties to obtain stipulations with respect to issues and resolve problems of admissibility of proof relating to the scope of issues specified in the statutes relied upon in the petition as the basis for the proceeding. As a result of such conferences the parties agreed that certain findings might be made in the order herein, namely:

(1) ORS 374.020 is the statute under which petitioner invokes the jurisdiction of Commissioner. Under the statute the Commissioner must determine whether or not public convenience and necessity require the establishment, including construction and operation, of the segment of thoroughway specified in the caption herein because:

(a) Admittedly the proposed construction requires petitioner to establish the throughway link across (i.e. over, with understructures upon) operating and/or business or industrial property served by railroad respondents, which will result in interference with shipper access to shipper facilities.

(b) Because the State Highway Commission (Department) and railroad respondents have not "agreed on a proposed throughway project."

The text of ORS 374.020 is here set forth for the purpose of clarifying the nature of the above finding.

"374.020 Interference with railroad facilities prohibited:

No throughway shall be established upon or across the tracks, yards, station grounds or other operating properties of any common carrier railroad, or upon or across any industrial or business property served by railroad industrial trackage, or upon or across any property at such a location as to unduly interfere with the reasonable access of shippers, passengers or the public to railroad depots, team tracks or other facilities for receiving or delivering freight or passengers transported by railroad unless the State Highway Commission and the railroad agree on a proposed throughway project, or unless the Public Utility Commissioner finds by order, upon petition of the State Highway Commission, after notice to the railroad and hearing in accordance with his rules of practice, that public convenience and necessity so require."

(2) All interested parties initially agreed and it is found that certain matters are beyond Commissioner's jurisdiction and power to determine by any operative finding, mandate or order, namely:

(a) The value of property or money compensation to be paid respondents, or any of them for taking any property or interest therein asserted to be required for construction of the link of the "project."

(b) Commissioner cannot order or authorize petitioner to make entry or take immediate possession of the property, any part thereof or any interest therein, owned or possessed by respondents.

(c) Commissioner cannot specify by finding or otherwise what quantum of estate is required for the project or is ultimately to be taken in the exercise by petitioner of its eminent domain powers.

Evidence was adduced on behalf of petitioner, respondents, and the Commissioner, the hearing was completed and the matter submitted for determination. Based upon the evidence, stipulations and record, it is found that:

The State Highway Commission of Oregon, the petitioner herein, has authority to establish, construct, designate, maintain and supervise the use and operation of throughways within the corporate limits of the City of Portland, under the provisions of ORS Chapter 374, and more particularly pursuant to authority contained in ORS 374.015 (1) and (3).

Petitioner, under its powers aforesaid, has invoked the jurisdiction of the Commissioner under the provisions of ORS 374.020. The second amended petition (hereinafter referred to as "petition") has alleged facts, supported in the record and by stipulations, referred to above, by which it is found that Commissioner has jurisdiction of the parties and subject matter to the extent set forth in the findings and determinations made in this order. This is the first instance shown by the records and files of Commissioner in which Commissioner's authority has been invoked under ORS 374.020.

The railroad respondents, namely Union Pacific Railroad Company, Oregon-Washington Railroad & Navigation Company, and Union Pacific Railroad Company, Lessee, are common carrier railroads and are railroads which serve railroad industrial trackage as defined in ORS 374.020.

The respondents, National Carloading Corporation, Western Transportation Co., Inc. and Republic Carloading & Distributing Co., are shippers and provide shipper facilities and team tracks or other facilities whereby they, or their patrons, or the public receive and deliver freight which has been or will be received for or delivered by railroad transportation as referred to in ORS 374.020. These parties, for convenience, when referred to collectively, are designated "shipper respondents."

By Condemnation Resolutions adopted by petitioner which contains recitals that the work described in "Exhibit A" attached to said resolutions shall be performed for the accomplishment of purposes declared to be a part of a designated throughway, it was resolved that six certain parcels of land (designated in said "Exhibit A") and certain interests in, or fee simple title to, such parcels were needed and required for said throughway. Said six certain parcels described in said "Exhibit A" are identical in descriptive calls to the six parcels of land described in the petition herein. Said resolutions further authorize and direct petitioner's chief counsel to prosecute to final determination such proceedings as may be necessary to acquire title to said six parcels of property. The petition filed herein was filed pursuant to authority of said Condemnation Resolutions.

Whenever in this order reference is made to "subject project" it shall be deemed to have specific and special reference to the portion of the routes and structures proposed and to the plans and specifications related to, and used to implement establishment of the particular "throughway" link for which petitioner seeks Commissioner's approval. The term "subject project" further is restricted in meaning to only that part of the construction proposed as does, or could relate to taking or interference with the property or interests therein as specifically set forth in the petition and in the attachments thereto, and described in said attachments as six certain parcels of land.

The term "subject project" as used herein is to be further distinguished from petitioner's designation "project," petitioner having identified "project" to mean all of the "East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as Stadium Freeway." The term "subject project" is to be so distinguished for the reason that the "subject project" is but a "link" or portion only of the "project" identified in the petition. It is only the "subject project," as hereinabove defined, that may properly be considered the subject matter over which Commissioner has jurisdiction under the provisions of ORS 374.020.

The "Stadium Freeway" has been duly designated a statutory "throughway" under statutory procedures duly and regularly adopted by petitioner and said "freeway" is likewise a "throughway" within the meaning and intendment of ORS 374.020. Both the "project" (as referred to in petition) and "subject project" (as hereinabove defined and limited) are part of such legally designated "freeway" or "throughway."

The purpose of the within proceeding, as stipulated by the parties at hearing, is to obtain from Commissioner a certificate of public convenience and necessity under ORS 374.020 procedures. It was stipulated that until Commissioner's authorization is obtained, the "subject project" is not one which can be part of a "throughway" -"established." Until issuance of Commissioner's Certificate under ORS 374.020, petitioner cannot further exercise general eminent domain powers in respect to the "subject project" by judicial process and thus acquire the title required and initially or finally take possession thereof.

Petitioner's plans and negotiations respecting "subject project" have proceeded in orderly fashion since 1955 at an administrative or negotiating level. Nevertheless such negotiations have been unsuccessful in effecting an agreement between petitioner and respondents on "a proposed . . . project" (ORS 374.020).

On and prior to June, 1955, petitioner caused an extensive freeway requirement study to be made. Pursuant to such study petitioner published and officially issued its "Technical Report No. 55-5," known as "Freeway and Expressway System Portland Metropolitan Area - 1955," hereinafter called the "1955 report" or "1955 study" (Exhibit 13).

The 1955 report was based upon a study of traffic and vehicular requirements via arterial highways in the Portland Metropolitan area which commenced about 1944. The report projected and described such arterial needs until 1975. Among projects recommended in the 1955 study as necessary during the 20-year projection period were the "Stadium Freeway" and the "Fremont Freeway" (Exhibit 13, pages 74 and 76). The estimates included in the 1955 report were made by standard highway projection techniques then available but also presently valid and acceptable.

Construction of the Fremont Bridge was recommended as a part of the "Stadium Freeway" by the 1955 study. The "subject project," as hereinabove defined, is a link which, as proposed by the petition, would connect the Fremont Bridge to other sections of the freeway northerly of the north terminus of respondent railroad lands (the six parcels described in the petition).

Recent average daily motor vehicle traffic counts (ADT) verifications and estimates developed to reflect most current data, which is supplied in the testimony of petitioner's traffic engineer, provide the basis for the following findings:

1. Fremont Bridge (and hence "subject project," the "feeding link") when completed, as scheduled, in 1970, will have an estimated 45,000 ADT.

2. After completion, reliable estimates, based on such counts, establish that the ADT count will be:

By 1980:	63,000
By 1990:	80,000

3. The Fremont Bridge is the indispensible link in the inner-loop of the Interstate Highway System for the City of Portland. When fully constructed the described link will supply an artery for the flow of the following vehicular traffic:

(a) It will serve north-south "desire lines" which to some extent must now use Broadway, Steel and Burnside Bridges.

(b) It will provide a circumferential routing around the "West Side Central Business District."

(c) It will relieve some Harbor Drive Freeway (US 99) traffic, and some Banfield Freeway traffic by interchanging some east-west traffic.

(d) It will move traffic from the industrial area of Northwest Portland to provide connection north via "Minnesota Freeway, south via "East Bank Freeway" and east via "Banfield Freeway."

(e) It will link traffic southbound from "Minnesota Freeway" so as to permit it to move west on "Lower Columbia River Highway" or south via "Stadium Freeway," thence west via "Sunset Highway" to Portland suburbs and "the Coast."

(f) It will move southbound commercial traffic from "Minnesota Freeway" into Northwest Portland commercial and industrial zones.

(g) It will allow through-flow of traffic from "Sunset Highway" and "Lower Columbia River Highway" to the north and to "Minnesota Freeway."

(h) It will provide an alternate route to relieve interstate and other traffic over the Marquam Bridge, which is presently within 6,000 ADT of maximum safe capacity.

4. The record establishes the reasonable probability of other additional uses for the Fremont Bridge (and thus also of the "feeder link", "subject project"). Most important of such future uses established include:

(a) The "Fremont Freeway" which is not scheduled for construction at present. However, it is reasonable to assume that this freeway, like the "Stadium Freeway," (having been officially recommended in the 1955 study as vital to the arterial traffic of Metropolitan Portland) will be constructed in due course. This freeway has continuously been such a vital part of the arterial highway plan that the bridge across the Willamette River planned to serve that freeway also bears the name "Fremont." The record shows that the construction of the Fremont Bridge is scheduled to commence in late 1969 and is an assured certainty. Much of the integral engineering and some of the preliminary preconstruction work for such bridge is now under way.

(b) Fremont Bridge will also serve the proposed "Mt. Hood Freeway" by way of diverting additional east-west traffic which now uses the Marquam Bridge. Also "Mt. Hood Freeway," although not an assured project, is scheduled for 1975, and must be considered as within the classification of a probable project and not merely a "possible" one.

In establishment of freeways, elevated viaducts, or more accurately, elevated superstructured highways are characteristic adjuncts to freeway requirements. In order to provide plans for such structures in relation to the "subject project," petitioner's engineers have been engaged since 1960 in surveys, studies and negotiations. Respondent railroads have at all times been aware of such studies, proposals and surveys. Their agents and officers have not only participated in joint planning, but suggestions made by railroad engineers and consultants have prompted numerous alternative routings and structural plan and specification revisions by petitioners.

Also the "shipper-patron" lessees ("respondent shippers") of railroad buildings frankly admit that they renewed leases on the buildings which they rent from the railroad with knowledge of petitioner's proposed "subject project" and subject to the risks and consequences attendant upon such lease renewals.

5. The most important of plans and negotiations found to have been carried on between petitioner and respondents include:

(a) On November 30, 1959, petitioner submitted "projection of bridge" (routing and structures for "subject project") to respondent Union Pacific Railroad Company (for this summary referred to as railroad) - (Exhibit 2).

(b) The railroad requested moving of alignment approximately 250 feet south of the November 30, 1959 projection of petitioner, because the initial projection "imposes definite handicaps to the fullest development and use of our (railroad's) Albina properties." The desired relocation and realignment plan of the railroad, dated December 31, 1959, is attached to railroad's request letter of February 24, 1960 (Exhibit 2).

(c) In order to satisfy the railroad's request of February 24, 1960, petitioner developed five different centerline alignments of the elevated highway structures all of which are shown and respectively marked on Exhibit 1. The respective alignments were changed. In all of such alignments the centerline was proposed further to the south, except that the 1963 alignment was moved slightly northerly. The five alignments were proposed on about the dates shown:

(1) 1st realignment: After February 24, 1960
(2) 2nd realignment: During the year 1961
(3) 3rd realignment: August, 1962
(4) 4th realignment: September, 1962
(5) 5th realignment: February, 1963

(d) Petitioner obtained an ingress-egress license upon railroad's right of way covering certain of the parcels described in the attachments to the petition for the purpose only "of enabling the State to perform instrument survey work" on the subject property "in connection with work on the proposed Fremont Bridge." The original license is dated November 26, 1962. The license was extended by annual extension riders for each succeeding year, the last expiring November 25, 1967 (Exhibit 16).

(e) Petitioner obtained from railroad, under date of July 27, 1967, a license to enable it "to perform exploratory core drilling for subsurface exploration in connection with construction of proposed East Fremont Interchange Structures" (foundation sites) on locations shown, all of which are within areas of "subject project" (Exhibit 15).

(f) Testimony of witnesses appearing both on behalf of petitioner and railroads, confirms that sometime subsequent to November, 1967, certain controversies arising from a private consultant's report respecting requirements which the railroad sought to impose before it would enter into a consent agreement with respect to "subject project" precipitated a disagreement resulting in the filing of original petition herein.

6. Purposes to be served by the "subject project" have been amply established by petitioner's proof. These are found to include:

(A) The fulfillment of the needs shown by the 1955 study and report to be required to provide specified arterial throughways, both "inner-loop" and exterior feed-ins" for the Portland Metropolitan freeway system, as more specifically hereinabove found and described.

(B) The supplying of specific additional requirements for intrastate, interstate and other traffic needs of vehicles in making through movements through downtown Portland and around Metropolitan Portland.

(C) The promotion of highway-traffic safety by preventing congestion and consequential vehicle accident hazards in present downtown Portland areas and at other critical points on the highway substitutes for several proposed arterial freeways not yet built.

7. Properties, or rights and easements therein or thereover, required for the "subject project," as hereinabove defined, have been shown to be required and needed to fulfill the purposes and uses set forth above: It is found that these include:

(A) Taking in whole or in part of the six separate parcels of land described particularly in the petition which are generally located on the north-westerly side of the Willamette River in respondent railroads' Albina railroad yards.

(B) Placement of piers and substructures to support the span or spans of an elevated highway to be operated above and over said six parcels of land described in the petition.

(C) Placement of the overstructure span will be required over much of respondent railroads' Albina rail "yards." The span will be approximately 2,000 feet in length.

(D) Adequate easement rights for building and maintaining the piers and substructures will be required. Present estimates are that 12 piers will be required to support the elevated highway. Pier foundations and heights vary in accordance with shaft heights, and shaft heights vary in accordance with elevations required for the elevated highway above grade levels. The piers vary from 8 x 17 feet to 8 x 25 feet measured at heights five feet above ground level. Excavations required for pier foundations vary, with maximums of 15 feet for foundations up to 60 foot shaft depths. The shafts or girders which reach maximum elevation to support the elevated highway will rise 90 to 100 feet above grade.

8. Inconvenience to, loss of use of, and interference with the use of and access to respondent's property:

(A) A total of six affected, or possibly affected, buildings are located on the six parcels of land to be spanned with the superstructure. There is no dispute that the structures required for the "subject project" must be constructed over three of such buildings and that one of such buildings will have to be removed to permit construction of two of the supporting piers. Respondents assert that in addition to the two buildings, which the present plans establish will be under the elevated highway, three other buildings, and/or use of the buildings, will be directly and adversely affected by the proposed structures.

(B) At least one, and possibly two, of respondent railroads' buildings are used in connection with operations of those railroads. Respondents assert that office employees and train crews will be inconvenienced as a result of the construction necessary to complete the "subject project."

(C) Respondents assert that the construction and maintenance of the "subject project" will result in creating hazards to the safety of train-crews, shippers and the public, and to the physical operations of trains and activities related to all phases of railroading which are presently conducted on the six parcels of land involved. The principal, but not an exhaustive, list of the hazards asserted by respondents include the following:

(1) Hazards arising from falling objects during construction.

(2) Hazard to physical rail facilities, trackage and signals during construction.

(3) Obstructions to view of operating railroad crews during and after construction.

(4) Hazards from falling objects after project completion and during operation of "subject project" by petitioner as a public highway authority.

(5) Hazards arising from obstruction of natural daylight and air affecting visibility and other activities of trainmen operating under the elevated highway.

(6) Hazards of shadows cast by piers and structures of the elevated highway, which cannot be obviated by use of artifical lights.

(7) Hazards of many sorts which will interfere with signalling between trainmen both by visual or auditory methods or with use of electronic equipment continuing after completion of the project.

(8) Rail-structure clearance hazards to rail movements in relation to highway piers and understructures.

The above-summarized findings relevant to problems reasonably to be expected, as well as those likely or possible to arise in connection with the taking, are made for the sole purpose of the following determinations respecting the relative priority of public interest and/or public convenience and necessity in the possibly conflicting public purposes asserted by the parties respectively. In the case of petitioner, the assertion is that the public convenience and necessity arising in establishment of a throughway "link" must be given priority. In the case of respondents the assertion is that the public interest and/or public convenience and necessity related to railroad operation and shipper need is so great that when unreasonable interference arises, Commissioner must withhold certification until conditions are imposed upon petitioner as an incident to the issuance of the certificate.

The railroad's position is that ORS 374.020 should be read that no throughway shall be established upon or across railroad property if there is any interference with any railroad property unless the State Highway Commission and railroad agree . . . or unless the Public Utility Commissioner finds that public convenience and necessity so require. Basically, the contention is that the objective is to prevent throughways from unnecessarily impairing or interferring with railroad property, facilities and operations. A large part of the evidence submitted by the railroad is in line with its position on this point. Its arguments for this position have been considered.

The Commissioner has power to act only as specified in the statute or within the scope of clear implications in the statute. In the first instance, the Commissioner's jurisdiction over rail-road-highway crossings in cities of 100,000 population or over has been specifically withheld by the legislature (ORS 763.015). Many of the points stressed by railroad would normally be considered and conditions possibly imposed in a proceeding under ORS 763.040. The location of the subject project is within a city of over 100,000 in population.

The Commissioner's jurisdiction of this matter is conceded to be under and by virtue of ORS 374.020. However, respondent railroad urges that in this proceeding the Commissioner must consider those things he would normally consider under ORS 763.040 and ORS 763.170.

The Commissioner finds he has no jurisdiction under ORS 763.040 and that ORS 763.170 applies to crossings at grade and a complaint thereunder cannot be brought by the railroad.

Of more importance when viewed with ORS 763.015 is the explicit wording of ORS 374.020. The statute is limited to the circumstances under which the Commissioner can take jurisdiction and then only in situations involving throughways.

ORS 374.020 is set forth on page 4 above. In pertinent parts, it provides that no throughway may be established (over railroad property, industrial or business property served by railroad industrial trackage or any property) at such a location as to unduly interfere with the reasonable access of shippers, passengers or the public to railroad depots, team tracks or other facilities for receiving or delivering freight or passengers transported by railroad unless . . . .

Under ORS 374.020, the Commissioner has considered the inclusion, within the scope thereof, of nonutility private property. This inclusion further strengthens a conclusion that the sole purpose and intent of the statute is to protect, for the public, reasonable access to a vital transportation utility service. The only area of the Commissioner's concern then is whether or not the subject project will unduly interfere with shipper or public access to facilities used for receiving or delivering freight or passengers transported by railroad. If so, the next consideration is whether, notwithstanding such interference, the public convenience and necessity requires the construction of the subject project. As part of this determination, it is proper to consider whether or not shipper access can be reasonably provided and maintained.

The Commissioner agrees with the stipulation of the parties that he cannot determine the value of the property or monetary compensation for the taking of any property or interest therein required for the subject project; cannot authorize petitioner to make entry or take immediate possession; or determine the quantum of estate required in the taking. The Commissioner further finds that he cannot condition a certificate issued herein to the taking of only a specified quantum of estate.

The Commissioner also finds that, except as to the reasonable access of shippers or the public to facilities for receiving or delivering freight or passengers transported by railroad, he can impose no conditions upon a certificate of public convenience and necessity insofar as they relate to affected railroad property in general. This includes the imposition of conditions upon entry upon or use of the property which may be acquired by condemnation or upon the exercise of rights which might be acquired.

In this case, the throughway structures will cause some interference with public access to three railroad facilities used for the shipping or receiving of freight transported by railroad. In one instance, two over-structure piers are proposed to be placed at the present location of one of the buildings. This will not only unduly interfere with public access to this shipping facility but will effectively require moving the building. The two other facilities are located near, but not under, the proposed structure.

Having found that the subject project will unduly interfere with reasonable access to shipping facilities by the public, notwithstanding that interference, does public convenience and necessity require the construction of the subject project?

The contention has been made that the need for such project must be an immediate need and not some future need. Gone is the day, in large populated areas, when plans can be made and projects developed based on the immediate needs of an existing situation. Planning must be on a longterm basis supported by reasonably predictable criteria. The master project plan, in this case, was developed in 1955. The evidence shows that the construction of the project has been commenced, has continued, and is continuing upon a schedule requiring that certain portions be completed and in operation on or before the date when such portions are needed on a maximum capacity basis. The subject project is part of this plan. It is only one link between two segments of the master plan, each of which is partially completed or in the construction phases.

The project, when completed, will be a chief transportation artery for the entire Portland metropolitan freeway system. If the predictions made for the use of the project materialize (and to date they have materialized as predicted) the project will be needed to expeditiously move an increasingly mobile society in and around the Portland metropolitan area. The fact that the particular segment of the project (the subject project herein) may not be needed immediately and may not be used until other portions of the project are completed is no reason to delay its completion at this time. The Fremont Bridge, of which the subject project is the feeding link, is scheduled for completion in 1970 and will carry an estimated 45,000 motor vehicles per day. Without this connecting link, the Bridge will be useless. 1970 is so near at hand that present delays should not be permitted to prevent the scheduled final completion.

There is substantial evidence that the subject project is a vital and needed link in the freeway system without which the Fremont Bridge would be rendered of little value. The subject project is a public necessity. Also, the evidence shows that, upon completion of the Fremont Bridge link, the project will serve the public convenience.

The parties admit that there are no problems related either to railroad use or shipper access which cannot be appropriately adjusted by an expenditure of money, structural designing, or relocation of facilities. Assuming this to be true, the access of the public to railroad's shipping facilities may be thus adequately provided. The plans and drawings in evidence indicate that any operational problems which may affect public access to railroad shipping facilities can be remedied by street realignment or building replacement. Nothing appears of record which would indicate that during construction reasonable shipper or public access cannot be afforded. During the construction period and afterward, applicant agrees to take all necessary safety measures to assure the safety of the public in its access to and use of the shipping facilities.

From the foregoing it is concluded, and the Commissioner so finds, that public convenience and necessity require the establishment of a throughway overpass, to be a part of the East Fremont Bridge Interchange structures of the Stadium Freeway, over and across the Albina railroad yards, properties and rights-of-way of the Union Pacific Railroad Company and the Oregon-Washington Railroad & Navigation Company situated northwesterly of the Willamette River in the city of Portland, county of Multnomah, state of Oregon. Said overpass structure will be approximately 2,000 feet in length; will require the construction, and the placement upon and location over such railroad properties, of piers, understructures and superstructures in accordance with plans of the Oregon Highway Commission now of record herein as designed on June 3, 1968; and will connect the aforesaid interchange structures with the Fremont Bridge.

Made, entered and effective SEPTEMBER 27 1968.

PUBLIC UTILITY COMMISSIONER OF OREGON

Sam R. Hales
Public Utility Commissioner

JLS:lf
6-28-68

PUX 667

BEFORE THE PUBLIC UTILITY COMMISSIONER OF OREGON

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "Project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon.	PUC HEARING SXF-430 STATEMENT OF POSITIONS AS TO FINDING OF FACTS AND CONTENTIONS OF CERTIFICATE OF CONVENIENCE AND NECESSITY

The position of petitioner as to the scope of the hearing conducted under the provisions of ORS 374.020 and the degree of necessity required to be proven to establish public convenience and necessity has already been set forth in a previous brief submitted on behalf of petitioner.

It is petitioner's position that the main issue was to determine whether the construction of the Fremont Bridge as a throughway and its connecting East Interchange in the location and in the manner shown by the pleadings, exhibits and testimony was dictated by public convenience and necessity, notwithstanding any interference that may exist with any of the Respondent's operating property.

As regards to necessity for the bridge and connecting ramps in general and more specifically in the exact location as shown on Exhibit 1, 5-10, and 12, the evidence introduced substantiates the following finding of fact:

1. That the basic plan for the construction of the Fremont Bridge was formulated in 1944 and re-examined in the Transportation Need Study of the Portland Metropolitan Area in 1955 as set forth in petitioner's Exhibit 13.

2. That the Fremont Bridge upon completion in 1970 will have an estimated 45,000 vehicles per day passing over it with an estimated increase to 63,000 vehicles per day in 1980 and an estimated 80,000 vehicles per day by 1990.

3. That the Fremont Bridge and its connection interchanges as shown on petitioner's Exhibit 3 is the final link in the inner-loop of the Interstate Highway System for the City of Portland and that without construction of this bridge the entire traffic plan for the inner-loop of the City of Portland would be useless.

4. That the traffic volume for local traffic in the City of Portland as well as for through traffic going through the City of Portland cannot be handled adequately or safely without the construction of the Fremont Bridge.

5. That the purpose of the Fremont Bridge is to:

a. Get local traffic out of downtown Portland on the west side of the Willamette River and also take traffic from the industrial area of Northwest Portland across the Willamette River and thence either north via the Minnesota Freeway, south via the East Bank Freeway or east via the Banfield Freeway.

b. Allow through traffic from the north coming into Portland on the Minnesota Freeway to go west over the Fremont Bridge and then to continue west on either the Lower Columbia River Highway which will connect directly to the interchange on the west end of the Fremont Bridge or go south over the Stadium Freeway and thence west via the Sunset Highway to suburban areas west of Portland on to the Coastal areas.

c. To allow commercial and industrial traffic from the north coming in on Minnesota Freeway to move over the Fremont Bridge and into the commercial and industrial area of Northwest Portland.

d. To allow traffic from both the Sunset Highway and the Lower Columbia River Highway to cross over the Fremont Bridge and go north via the Minnesota Freeway without having to stop or to congest local traffic in the southwesterly or northwesterly portions of the City of Portland.

e. Provide an alternate crossing of the Willamette River on the Interstate System in the event that the Marquam Bridge is blocked or damaged.

6. That petitioner in selecting the specific location of the Fremont Bridge and its easterly interchange did not in fact arbitrarily select the specific location of the bridge but did consult with the railroad concerning the location of the bridge and did in fact move the centerline of the bridge 250 feet south to reduce the interference with railroad facilities.

7. That there are three (3) buildings owned by respondent railroad that are in a location that will be under the proposed structure and the buildings are shown on petitioner's Exhibit No. 5. That two (2) of said buildings will not interfere with the construction of the piers and its East Interchange in that one of said buildings will have to be removed in order to construct two piers for the East Interchange of the bridge. That there are three other buildings outside of the area petitioner seeks to condemn that respondent railroad witnesses

testified would be affected by the structures; however, witnesses for the respondent railroad also admitted that interference with all of these buildings could be corrected with the payment of money and that the three buildings under the proposed structures can be relocated and still function just as efficiently as they do now outside of the area over which the East interchange will be constructed. The one building which the petitioner will have to acquire in order to construct its structure is leased to two (2) freight forwarding companies and the relocation of that building in the immediate vicinity would not hinder their operations in any way. That both lessees moved into said building after both they and respondent railroad knew it would be taken by the proposed construction. Because of the above findings no further consideration will be given to any interference with the respondent railroad's buildings as such interference can be corrected by the payment of money (i.e. just compensation) which can be determined in a proceeding in eminent domain.

8. That there will be seven piers located on respondent railroad's property being Piers No. 1, 2, 3, 4, 8, 9 and 10. Piers 4 and 8 will be located at the extreme east boundary of respondent railroad's property and will not in any way interfere with respondent railroad's operations. Pier 3 is located approximately 136' southwesterly of Pier 4 and Pier 9 is located approximately 163' southwesterly of Pier 8 and neither pier will interfere with railroad's operating facilities in that vicinity. Pier 10 is located in the Northwest corner of Block 2, John Brendle's Addition to the Town of Albina in the City of Portland and does not interfere with any of respondent railroad's operation facilities. Piers 1 and 2 will be 8' by 17' in size and a point 5 feet above ground level and the northwesterly most edge of Pier 2 will be 100' southwesterly from the respondent

railroad's freight house and Pier 1 will be approximately 160' southwesterly of respondent railroad's freight house and there are no tracks in close proximity to Pier 1 and although there is one track approximately 20' from Pier 2, Pier 2 does not interfere with the safe and efficient operation of said track.

9. Pier 12 is located in North Russell Street and is 8' by 25' in size at a point 5 feet above ground level and is approximately 35' northwesterly of the nearest railroad track.

10. Respondent railroad by its own testimony indicated that there were eight tracks that would be under the structure southwesterly of Pier 12 and that only four of these tracks were main line tracks and that the other four served the freight house, round house, rail car cleaning area and the rail car repair area.

11. Respondent railroad produced extensive testimony indicating that they would suffer loss of business and irreparable damage if the trains were delayed due to the construction or operation of the bridge and its East Interchange. The respondent railroad with two minor exceptions did not indicate in any specific manner how the construction and operation of the bridge and its East Interchange could in fact slow down any of the railroad's operation and in any manner cause them any damage. The two exceptions were as follows:

a. That the structure would cause shadows which would interfere with switch operations underneath the structure; however, respondent railroad admitted that the shadows could be eliminated by the installation of adequate lighting. Therefore, that objection is easily capable of being eliminated.

b. That the piers would interfere with the switching operation of the railroad by impairing vision between employees on each end of the switching movement, but no Exhibits were introduced

or any testimony given using the Exhibits in evidence to demonstrate how, in fact, railroad's operations would be interferred with or slowed down by the piers. An inspection of the Exhibits does not show that any of the piers would interfere with respondent railroad's switching operations.

12. Respondent railroad admitted that they would be allowed to drive underneath the structures and park underneath the structures in any areas that were not occupied by piers.

Based upon the above findings of fact, it is the opinion of the Commissioner that the construction of the Fremont Bridge and its East Interchange will not interfere with the operation of respondent railroad's facilities underneath and adjacent to the proposed structures to such a degree that would prevent the issuance of a Certificate of Public Convenience and Necessity for the construction of the Fremont Bridge as a throughway and its East Interchange as a throughway as shown on the plans submitted by petitioner.

That should a certificate of Public Convenience and Necessity be issued it should be substantially as follows:

CERTIFICATE OF PUBLIC CONVENIENCE & NECESSITY

Whereas the Commissioner has by Order No._____ determined that public convenience and necessity require that the Petitioner, State of Oregon, by and through its State Highway Commission be allowed to construct the Fremont Bridge and the East Fremont Interchange over and across property owned by Oregon-Washington Railroad & Navigation and Union Pacific Railroad which property is described as follows:

JLS:lf
6-28-68

(Insert a description of property contained in Paragraph VIII of the Petitioner's Second Amended Petition.)

It is hereby ordered that said Petitioner be allowed to acquire by a proceeding in eminent domain if necessary such rights in land over and across the above described property as it deems necessary for the construction, operation and maintenance of the Fremont Bridge and the East Fremont Interchange.

Dated at Salem, Oregon this 3rd day of July, 1968.

STATE OF OREGON, by and through
its State Highway Commission

G. E. ROHDE
Assistant Attorney General and Chief
Counsel for the State Highway Commission

By_____
JACK L. SOLLIS
Utilities & Railroad Attorney

RECEIVED
JUN 7 1968

FOR FILING

I-404-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 4, 1968

RAILROAD COMPANIES
FILE No. 65-7

To: Mr. Floyd Query, Secretary
State Highway Commission

SUBJECT: Files: PUX 667 R-36087
Core Drilling Agreement
Union Pacific Railroad Company
Fremont Bridge Section
Stadium Freeway
Multnomah County

BUILDING

Attached hereto please find one copy of the above-subject agreement. The fully executed duplicate original has been handed to Velda DeGuire in Mr. Saling's office for processing, after which it will be forwarded to your office for your permanent records.

Distribution of conformed copies has been made as indicated below.

Jack L. Sollis
JACK L. SOLLIS
Utilities & Railroad
Attorney

JLS:lf
Attachment

cc: F. B. Klaboe (1)
F. D. Morgan (2)
E. S. Hunter (1)
A. E. Johnson (2)
R. N. Chase (3)
C. H. Maison (1)
E. F. Saling (1)
T. W. Litchfield (1)

6-6-68
Noted

NOTED
FLOYD QUERY

RECEIVED
MAY 7 - 1968
FORM E-20 SDM 10-65
FOR FILING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 3, 1968

SUBJECT: PUX 667 - Petition for Certificate of Convenience and Necessity
E. Fremont Bridge Interchange

To: Ivan D. Merchant
Al Rear
T. W. Litchfield
A. E. Johnson

The Public Utility Commission hearing on this file has been reset for Monday, June 3, 1968 at 10:00 AM in Room 101 Public Service Building Salem, Oregon. I would appreciate having a pre-hearing conference with all of you on either May 29 or May 31. Would you please advise me as to which date would be most convenient.

JACK L. SOLLIS
Utilities & Railroad
Attorney

JLS:lf

cc: Forrest Cooper
R. L. Porter
F. B. Klaboe
J. J. Smith

NOTED
FORREST COOPER

RECEIVED
MAY - 3 1968
OFFICE OF
STATE HIGHWAY ENGINEER

4-19-68

PUX 667

BEFORE THE PUBLIC UTILITY COMMISSIONER OF OREGON

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "Project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon.	No. SXF 430 B R I E F

The petition in this matter was filed pursuant to the provisions of ORS 374.020, which provides:

> "No throughway shall be established upon or across the tracks, yards, station grounds or other operating properties of any common carrier railroad, or upon or across any industrial or business property served by railroad industrial trackage, or upon or across any property at such a location as to unduly interfere with the reasonable access of shippers, passengers or the public railroad depots, team tracks or other facilities for receiving or delivering freight or passengers transported by railroad unless the State Highway Commission and the railroad agree on a proposed throughway project, or unless the Public Utility Commissioner finds by order, upon petition of the State Highway Commission, after notice to the railroad and hearing in accordance with his rules of practice, that public convenience and necessity so require."

By any reasonable interpretation of the statute the only issue to be decided by the Public Utility Commissioner is that public convenience and necessity require that the bridge be constructed at the particular location and in the manner set out in the petition and attached exhibits.

Wampler v. Trustees of Indiana University, 172 N.E.2d, 67 Indiana (1961):

> "The necessity and expediency of taking property for public use is a legislative question, and where the intended use is public, the question may be determined by such agency and in such manner as the legislature may designate."
>
> ". . . Its judgment cannot be questioned or superseded by the courts except for fraud, capriciousness or illegality."

Peter v. Davenport, R. I. & N. W. Ry. Co., 54 N.W.2d 863 Iowa (1952):

Code Section 481.3 I.C.A. authorizes a railroad to acquire necessary right of way "by condemnation or purchase" for "a reasonably adequate and suitable spur track * * * required for the successful operation of any existing * * * industry." It expressly provides "no such track is required to be constructed until * * * the State Commerce Commission, after hearing, shall have declared the same to be necessary."

> "The legislature has clearly delegated to the commission the power to determine the question of necessity. * * * The power to so delegate is unquestioned."

In determining if public convenience and necessity require the construction in a particular place and in a certain manner it is not necessary to show absolute or indispensable necessity but merely reasonable necessity in the furtherance of the end in view.

Northern States Power Co. v Oslund, 51 N.W.2d 808 Minn. (1952):

> "It is well settled in the jurisdiction that there need be no showing of absolute or indispensable necessity, but only that the purposed taking is reasonably necessary or convenient for the furtherance of the end in view."

Vittetoe v. Iowa Southern Utilities Company, 123 N.W. 2d 878 Iowa (1963):

> "An absolute necessity for taking the particular land need not exist. A reasonable necessity is sufficient."

No power is vested in the Public Utility Commissioner under ORS 374.020 to adjudicate the value of the property rights that are to be acquired by the eminent domain action which may be instituted subsequent to this hearing. The value of any property rights condemned and the damages, if any, to respondent railroad's remaining property and any restrictions as to the use by respondent railroads of the land over which petitioner proposes to build its structures are entirely beyond the scope of this statutory proceeding.

The Public Utility Commissioner likewise does not have authority under the provisions of ORS 374.020 to decide any question other than public necessity and convenience and specifically not to impose as conditions in the certificate of public convenience, should it be granted, as set out in paragraph VII of respondent railroad's answer, with the exception of those parts admitted in petitioner's reply.

In orders of the Public Utility Commissioner issued previously pursuant to the provisions of ORS 758.015 which are concerned with the construction of overhead power transmission lines which require the petitioning of the PUC for a certificate of public convenience and necessity the commissioner has held that the value of the land to be taken and damages were not within the jurisdiction of the commissioner under ORS 758.015.

All that petitioner must show is that the location of and construction of the structures is real and necessary and is such as a reasonable and prudent person would adopt, and is the most feasible and practical route.

The conditions set out in paragraph VII of respondent railroad's answer, except those admitted by petitioner's reply, are completely beyond the scope of this statutory hearing. Anything specifically dealing with elements of land value, damages, restriction on land use, cost of relocation of respondent's railroad facilities or conditions contained in respondent railroad's standard form highway crossing agreement are not within the power of the PUC to impose under this statutory hearing but are only to be considered in an eminent domain proceeding filed by petitioner.

In conclusion I feelthat the issues of land values and the amount of possible damage which might arise in the taking under the Petitioner's eminent domain powers are entirely beyond the scope of this statutory proceeding. The sole issue which must be determined herein, in order to justify the issuance of a Certificate of Public Convenience and Necessity, is whether or not the route selected is the most feasible.

Respectfully submitted,

Jack L. Sollis
Staff Attorney
State Highway Department

JLS/jw/bdr
4/19/68

FORM E-123

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
PENDLETON

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I-405-8(22)304
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STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

April 18, 1968

Mr. Sam R. Haley
Public Utility Commissioner
200 Public Service Building
Salem, Oregon 97310

Re: SXF 430 - PUX 667
Fremont Bridge

Attention: Charles Leierer, Director
Examiners Division

Dear Sir:

With reference to Mr. Bergmann's motion for a continuance on the hearing of the above file from May 16, 1968 until on or after June 3, 1968, the Highway Department is opposed to the granting of such an extension on the basis that this hearing involves completing the construction of a 60 million dollar bridge. The railroad, in the event that convenience and necessity is determined in favor of the Highway Department, has the opportunity to appeal the matter and further delay a final determination. Time is of the essence in order that the matter be finally resolved in time for the East Interchange connection to the Fremont Bridge be constructed in accordance with our construction schedule.

NOTED
R. L. PORTER

Very truly yours,

G. E. ROHDE
Chief Counsel

By

JACK L. SOLLIS
Utilities & Railroad
Attorney

RECEIVED
APR 19 1968
OFFICE OF
STATE HIGHWAY ENGINEER

JLS:lf

cc: R. L. Porter
F. B. Klaboe
Ivan D. Merchant
T. W. Litchfield
L. James Bergmann, Attorney for Union Pacific Railroad
National Carloading Corporation
Western Transportation Co., Inc.
Republic Carloading & Distributing Co.

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FEB 28 1968
FOR FILING

I-405-8(82)304
7310

February 27, 1968

Mr. L. James Bergmann, General Attorney
Union Pacific Railroad Company
727 Pittock Block
Portland, Oregon 97205

2223

Dear Mr. Bergmann:

Re: Your File 9001-32-14-A, Our File R-36027
Union Pacific Railroad Company, Fremont
Interchange-Sunset Interchange Section
Stadium Freeway, Multnomah County, Oregon

In reply to your letter of February 20, please be advised that as soon as your presentation was received on December 1, 1967, this material, along with other material, was forwarded through the local office of the Bureau of Public Roads to Washington, D. C., for a determination. This matter was referred through the usual Right of Way channels.

In late January 1968, a reply was received from the Bureau indicating that the National Carloading Building was not operating property.

We have now resubmitted the material through the Regional Attorney for the Bureau of Public Roads, Mr. Barry Rutledge, feeling that this is a matter to be resolved by the Legal Department rather than the Bureau Right of Way Division, and we hope that an opinion will be forthcoming quite soon.

I hope you realize that when matters must be referred to Washington, D. C., it does take some time for them to be handled. I am sure that in your own organization when matters must be referred to a higher level it takes some time to get a reply.

We can assure you we will do everything possible to obtain an answer from the Bureau at the earliest possible date.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Barry Rutledge
A. W. Pereña

cc: Forrest Cooper
R. L. Porter
Victor D. Wolfe - 2223
Tom Edwards
G. E. Rohde
F. D. Morgan
Ivan Merchant
L. H. Young
T. W. Litchfield

JLS:jw srb

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
LAW DEPARTMENT

February 20, 1968

727 PITTOCK BLOCK
PORTLAND, OREGON 97205

227-7771

9001-32-14-A

RANDALL B. KESTER
GENERAL SOLICITOR

SAMUEL B. STEWART
JOHN F. WEISSER, JR.
L. JAMES BERGMANN
GENERAL ATTORNEYS

ALLARD J. HEITKEMPER
CHARLES N. ISAAK
ATTORNEYS

REFERRED TO
Admin
BY SECRETARY

State of Oregon
State Highway Department
Salem, Oregon 97310

Gentlemen:

File R-36087: Union Pacific Railroad Company, Fremont Interchange-Sunset Interchange Section, Stadium Freeway, Multnomah County, Oregon

On October 2, 1967, a conference was held between representatives of your Department, the Bureau of Public Roads and the Railroad, to discuss and try to resolve the question of whether you would relocate the Railroad's freight house, known as the "National Carloading Building," in connection with the construction of the Fremont Interchange overpass structures.

At the meeting, your position was stated to be that, based on a study conducted by your consultant, it had been concluded the building was "non-operating" property, and that therefore you would not relocate it. You solicited the basis for the Railroad's contention that the building was "operating" property and should be relocated, which we agreed to do upon receipt of the pertinent data from your consultant's report. It was represented to Railroad personnel attending the conference, that contentions would be given immediate consideration when received, and that, if sound, the building would be relocated at the State's expense as part of the project, as in the case of other Railroad operating property.

Copy to Pete.

orig Sollis w/file - RLD.
cc Morgan
Fremont
Young
2-26-68

Copy to Jack Sollis
2-23-68

At the conference, representatives from the State Highway Department and the Bureau of Public Roads repeatedly emphasized that time was of the essence, and that it was essential to the orderly completion of the project that this issue be quickly resolved, and that an agreement be reached as to the balance of the project. The Railroad was requested to make its statement of position a matter of high priority, with the assurance that the State and Federal officials would do likewise so that the matter could be quickly resolved.

Based on those representations and assurances, we gave the matter priority, and within three weeks from the receipt of excerpts from your consultant's report, a comprehensive written statement of the Railroad's position was furnished to you. It is our understanding that our statement was forwarded to your consultant, and that you received his comments thereon prior to December 1, 1967.

If the matter were as urgent as you indicated, it would seem that sufficient time has elapsed for its resolution. However, approximately two and one-half months have passed since your consultant's review of our letter, and it has still not been concluded. In order that we may make our plans, we would appreciate it if you would take steps to reach a prompt determination, and, in future cases, to have such matters handled by the State and Bureau of Public Roads with at least the same degree of priority that is requested from the Railroad.

Very truly yours,

RANDALL B. KESTER

LJB:mlc

By L. James Bergmann

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OREGON
STATE HIGHWAY COMMISSION

FORM E-123

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FEB 26 1968
GEO. Johnson G

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
HELIX

I-405-8(22)304
7310

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

February 23, 1968

Mr. Sam R. Haley
Public Utility Commissioner
200 Public Service Building
Salem, Oregon 97310

Re: PUX 667 - SXF 430
Oregon-Washington Railroad
& Navigation Company;
Union Pacific Railroad
Multnomah County

Dear Mr. Haley:

I am enclosing herewith an original and four copies of our Reply in the above-subject matter. True copies of the Reply have been served on Oregon-Washington Railroad & Navigation Company and Union Pacific Railroad by mailing true copies thereof to L. J. Bergmann, 727 Pittock Block, Portland, Oregon 97205, their attorney of records. True copies have also been served by mail on National Carloading Corporation, 5550 N. Basin, Portland, Western Transportation Co., Inc., 550 N.W. Front, Portland, and Republic Carloading & Distributing Co., Inc., 1027 N. Russell, Portland.

Very truly yours,

G. E. ROHDE
Chief Counsel

By Jack L. Sollis
JACK L. SOLLIS
Utilities & Railroad
Attorney

NOTED
F. B. KLABOE

JLS:lf
Attachments

cc: R. L. Porter
F. B. Klaboe
Ivan D. Merchant
F. D. Morgan
A. E. Johnson
T. W. Litchfield

Oregon-Washington Railroad
& Navigation Company and
Union Pacific Railroad
727 Pittock Block, Portland

National Carloading Corp.
5550 N. Basin, Portland

Western Transportation Co. Inc.
550 N.W. Front, Portland

Republic Carloading & Distributing Co.
1027 N. Russell, Portland

FEB 26 1968
OFFICE OF

JLS:lf
2-20-68

PUX 667

BEFORE THE PUBLIC UTILITY COMMISSIONER OF OREGON

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "Project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon	No. SXF 430 REPLY

Comes now the State of Oregon, by and through its State Highway Commission, and for reply to respondent's answer, admits, denies and alleges as follows:

I

Denies that all of the property described in paragraph VIII of the second amended petition on file herein and referred to in paragraph IV of respondent's answer is operating property of respondent, and alleges that a portion of said property is non-operating property of respondent.

II

Admits the allegations of paragraph VI of respondent's answer.

III

Denies paragraph VII of respondent's answer except that petitioner admits that portion of subparagraph (a) on lines 1-3 of said subparagraph on page 3, subsection (1) of subparagraph (a) and that part of subparagraph (c) contained in lines 1-6 on page 5 and ending with the word "estate" on line 1 of page 6 of respondent's answer.

IV

Alleges that the petition was filed for the purpose of securing a

JLS:lf
2-20-68

certificate of public convenience and necessity and that under the provisions of ORS 374.020 the Commissioner does not have jurisdiction to require petitioner to agree to and abide by any additional conditions and provisions concerning the construction of the overcrossing structures or the condemnation of the land as described in paragraph VIII of the second amended petition.

WHEREFORE, Petitioner prays for entry of an order in accordance with said Petition, Answer and Reply and for such other and further order or orders as may be just and proper in the premises.

Dated at Salem, Oregon this 21st day of February, 1968.

State of Oregon, by and through its
State Highway Commission

G. E. ROHDE
Assistant Attorney General and Chief
Counsel for the State Highway Commission

By_____
JACK L. SOLLIS
Utilities & Railroad Attorney

STATE OF OREGON)
) ss
County of Marion)

I, IVAN D. MERCHANT, being first duly sworn, say that I am Bridge Engineer for the Oregon State Highway Commission and that the foregoing Reply is true as I verily believe.

Ivan D. Merchant

Subscribed and sworn to before me this 21st day of February, 1968

JACK L. SOLLIS
Notary Public for Oregon
My Commission expires December 19, 1968

I certify that the above is a true and correct copy of the foregoing Reply and the whole thereof.

Jack L. Sollis
Utilities & Railroad Attorney

yellow copy

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COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
HELIX

J-405-8(22)304
1310

NOTED
F. B. KLABOE

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310
February 20, 1968

Mr. Barry Rutledge
Regional Attorney
Bureau of Public Roads
222 S. W. Morrison
Portland, Oregon

Re: File No. R-36087
Union Pacific Railroad
Oregon Project
I-405-8(4) 303
Fremont Bridge Section
Stadium Freeway

Dear Mr. Rutledge:

On December 4, 1967, we forwarded to Mr. A. W. Parsons, Division Engineer in Salem, certain information concerning the status of the building owned by the Union Pacific Railroad and referred to as the "National Carloading Building." We stated in our letter that we felt the building was operating property and asked the bureau for concurrence in this finding. The matter was referred to the regional office and then to Washington D. C., through the Right of Way Division.

On January 31, 1968, we were advised by the division office of the Bureau of Public Roads that the Washington, D. C., office had decided that only the loading platform at the end of the building was operating property and that the building was not. No explanation was contained in that letter or the letter from the Washington, D. C., office. A copy of each is attached.

We feel that this is a matter for legal determination and therefore resubmit the same material for your consideration and that of the General Counsel in Washington, D. C., if necessary.

We would like to point out that Mr. Diffenderfer, an international expert on railroads, considers it operating property. If the Bureau of Public Roads still feels it is non-operating property, can they supply us with an expert witness to testify that it is not operating property? We will have to use Mr. Diffenderfer to testify that the structures and restrictions will not damage the remaining yard area of the railroad, and the railroad will undoubtedly call him as a witness on the status of the National Carloading Building. He will testify that it is operating property. This will open a Pandora's Box of damages to the railroad's operations by reason of the taking of the National Carloading Building.

RECEIVED
FEB 2 1 1968
OFFICE OF
STATE HIGHWAY ENGINEER

We feel that on the basis of Mr. Differderfer's letter and the legal presentation by the Union Pacific Railroad the National Carloading Building in its entirety is operating property and should come under the provisions of PPM 30-3.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
F. B. Klaboe
G. E. Rohde
Frank McKinney
A. E. Johnson
Ted Litchfield
A. W Parsons
Dave Moehring

Parsons ~~Gillis~~
Schell ~~Lee~~ Oregon Division
Gamell ~~Hall~~

JAN 23 1968

39-20

08-00.7

Mr. B. J. McClarty, Acting Regional Federal
Highway Administrator
Portland, Oregon

J. A. Swanson for

F. C. Turner, Director of Public Roads
Washington, D. C.

Oregon Project I-405-8(4)303 - Fremont Bridge Section
File 36087 - Union Pacific Railroad
(Re: Right-of-Way Engineer Stanley's Memorandums of November 17 and December 14, 1967)

We have reviewed the State's request to acquire an aerial easement across the Union Pacific Railroad Company's property submitted with Regional Right-of-Way Engineer Stanley's memorandum of November 17, 1967, and the Division's memorandum, both recommending approval of the State's request.

You and the Division advise that acquisition of the proposed easement will be less costly than the fee title and that the instrument of conveyance to the State, from the railroad, will provide adequate protection in accordance with the appropriate requirements of PPM 80-5, attachment 3. It is also suggested that, in addition to the previously mentioned requirements, a clause should be inserted to assure that the piers and abutments of the highway structure will be adequately protected.

The State's request to acquire the easement of limited vertical dimension is approved with the understanding that the above-mentioned items regarding the protection of the piers, and the appropriate requirements of PPM 80-5, attachment 3, will be met.

Our position regarding the Union Pacific warehouse occupied by National Carloading remains unchanged, that is, it is not a railroad "facility" so as to come within the scope of PPM 30-3, and should be treated as an ordinary right-of-way acquisition. The storage platform on the other hand is being used in railroad operations and qualifies to be handled under PPM 30-3.

Called T. H. Stanley & he advises to release W.O. portion to state. Chas 1/30/68

Called State staff attorney Sallie & advised him of above. Chas 1/31/68.

cc: Mr. G. M. Williams

RECEIVED
FEB 28 1968

Form FH-121 (4-67)

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304
7310

Klaboe

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage St. NE. - Salem OR 97301

DATE: January 31, 1968
08-35.7
In reply refer to:

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

A.W. Parsons

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

7

SUBJECT: Oregon Project I-405-8(4)303, Fremont Bridge Section
File 36087, Union Pacific Railroad

Utility and Railroad Attorney Jack L. Sollis' letter of November 2, 1967 requested our approval of a proposal for the State to acquire a right of limited vertical dimension across the Union Pacific Railroad property. Your request to acquire an easement of limited vertical dimension is approved, subject to a clause being inserted in the easement to assure that the piers and abutments of the highway structure will be adequately protected.

Assistant State Highway Engineer F. B. Klaboe's letter of December 4, 1967 requested our concurrence in your proposal to treat the National Carloading building as railroad operating property under PPM 30-3. Mr. Klaboe's letter, along with additional supporting information submitted by Utility and Railroad Attorney Sollis was forwarded to our Washington office for a determination as to whether or not the National Carloading building should be treated as a railroad facility or handled as an ordinary right of way acquisition. It is our position that the National Carloading warehouse is not a railroad facility and does not come under the scope of PPM 30-3. It should be treated as an ordinary right of way acquisition. The storage platform which adjoins the building is being used in railroad operations and qualifies to be handled under PPM 30-3.

copies 2-27-68

REFERRED TO
Young - Merchant
BY ASST. STATE HWY. ENGR.
Fletcher - Sollis

NOTED
F. B. KLABOE

RECEIVED
FEB - 1 1968
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JAN 8 - 1968

FOR FILING

I-405-8(22)304
7310

January 5, 1968

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Dear Sir:

Re: File R-36087, Union Pacific Railroad
Fremont Interchange-Sunset Interchange
Section, Stadium Freeway, Project No.
I-405-8(4)303

Regarding the acquisition of right-of-way on the above file, we have not as yet reached an agreement with the Union Pacific Railroad and we have filed a petition with the Public Utility Commissioner for a Certificate of Convenience and Necessity to condemn the parcels necessary for the construction of the East Fremont Interchange. We will continue to attempt to work out a settlement and also continue to press for the Certificate of Necessity.

If the Certificate is granted and the Railroad does not appeal, we will proceed with condemnation.

If the Certificate is not granted or the Railroad does appeal, then because of the time element it will be necessary for us to refer the condemnation of the property needed from the Union Pacific Railroad to the Federal Government.

You realize, of course, that we cannot do any more negotiating with the Union Pacific Railroad at the present time, inasmuch as the status of the National Car-loading Building has not been finally determined and our request that it be considered operating property and thus eligible to be relocated has been submitted through your

office and is now in Washington, D. C. Until a decision is rendered on this particular point, all we can do is proceed to get authority to condemn.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

J. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
G. E. Rohde
F. D. Morgan
Jack Sollis
T. W. Litchfield
A. E. Johnson

JLS:lf arb

JLS/bar
12-19-67

PUX 667

BEFORE THE PUBLIC UTILITY COMMISSIONER OF OREGON

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "Project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon.	SECOND AMENDED PETITION Docket No. SXF 430

The petitioner herein respectfully represents:

I

That the name and address of your petitioner is the State of Oregon, by and through its State Highway Commission, State Highway Building, Salem, Oregon 97310.

II

That this Petition is made under the authority of ORS 366.205, 374.015 (3) and 374.020.

III

The petitioner proposes to construct the East Fremont Interchange structures, which are a part of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, in part upon, over and across the tracks, right of way, operating and non-operating property of Respondents - Union Pacific Railroad Company and Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; that said Interchange forms the connection between the Pacific Highway, State

Primary No. 1 and the proposed Fremont Bridge, both of which are component parts of Throughways; that the construction details of said project, the points of intersection of petitioner's proposed Overcrossing structures and Respondents' tracks, the angles of intersection, grades, clearances and other pertinent engineering details appear upon petitioner's Drawing, marked Exhibit "A", Drawings Nos. P-8958-A, B, C, D and E, and 23508 attached to the original application and by this reference made a part hereof. Drawing No. P-8958-A shows horizontal alignment in the area of the Respondents' property. Drawings Nos. P-8958-B and C show elevations and span arrangements for the various roadways through the Respondents' property. Drawings Nos. P-8958-D and E are pier elevations. Drawing No. 23508 shows the location of the piers in relationship to Respondents' tracks. The super-structure of the structures will consist of curved steel box girders with a concrete deck. The pier shafts will be of reinforced concrete with the footing supported by steel piling.

IV

That the estimated annual average daily traffic over the Fremont Bridge and said structures upon completion in 1970 will be 49,000 vehicles, with an estimated increase in 1980 to 55,000 vehicles.

V

That an Undercrossing of said tracks and property of Respondents is not feasible due to the close proximity of said tracks to the Willamette River, a navigable stream; that due to the high traffic density upon the new highway, a public safety would not permit the construction of a crossing at grade.

VI

That ORS 374.020 does not require an agreement between petitioner and railroad before conferring jurisdiction herein on the Public Utility Commissioner.

VII

That there will be no impairment of vertical or horizontal clearances less than prescribed by the Rules and Regulations of the Public Utility Commissioner.

VIII

That the proposed project will be on, over and across the following described property of Respondent Railroads in the City of Portland, Oregon, to-wit:

PARCEL 1

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, John BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which centerline is described as follows:

Beginning at Engineer's centerline Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36°39' East) 440 feet; thence North 31°09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34°54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88°31'30" East) 1308.67 feet to Engineer's Centerline Station "SW" 326+63.33.

ALSO that portion of said Lots 4 and 5 lying Southeasterly of said connection centerline.

(Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.)

The parcel of land to which this description applies contains 8,650 square feet, more or less.

PARCEL 2

A parcel of land lying in Lot 7, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described as follows:

Beginning at Engineer's Centerline Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on an 11,459.16 foot radius curve left (the long chord of which bears South 44°26' West) 913.33 feet; thence South 42°09' West, 362.16 feet to Engineer's Centerline Station "WE" 343+61.92.

ALSO that portion of said Lot 7, lying Northwesterly of said centerline.

(Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.)

The parcel of land to which this description applies contains 5,260 square feet, more or less.

PARCEL 3

A parcel of land lying in Lots 1 and 2, Block 2, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

ALSO that portion of said Lot 1, lying Northwesterly of said centerline.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

JLS:ja
10-30-67

PARCEL 4

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

PARCEL 5

A parcel of land lying in the Northwest Quarter (NW¼) of Section 27, Township 1 North, Range 1 East, W.M., Multnomah County, Oregon; the said parcel being that portion of said Northwest Quarter (NW¼) lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which connection centerline is described in Parcel 1, and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

PARCEL 6

A parcel of land lying in Block 74, ALBINA in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet;

All of said parcels being in the City of Portland, Multnomah County, Oregon.

IX

That if this petition is allowed petitioner will impose the following restrictions on the real property of the respondent described in paragraph IX above.

1. In conducting its operations in the easement area hereinabove described, Respondent Railroads, their successors, legal representatives and assigns shall not:

   A. Construct any buildings or structures that are not of fireproof construction.

   B. Construct any buildings or structures, or conduct any activity above a curved horizontal plane which is 8 feet below the underside of said highway structures.

   C. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

   D. Interfere with any of the piers, decks, light or drainage facilities.

   E. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

   F. Have any rights of access of any nature between the roadways of the highway structure constructed on said easement area from the Railroads' property adjacent thereto.

G. Build any buildings or structures above the highway structures constructed on or above said easement area.

2. The State Highway Commission and/or its contractors shall have access across said easement area for the purpose of maintenance and reconstruction of said piers, decks, lights and drainage facilities, so long as said access and activities do not interfere with railroad operations. In the event any work is done in the easement area by a contractor of the State Highway Commission, the contractor shall provide Respondent Railroads with acceptable property damage and personal liatility insurance prior to commencing work.

X

That the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee, are the only parties affected by this proposed construction.

XI

WHEREFORE, Petitioner prays for an Order find that public convenience and necessity require the construction of said Overcrossing structures on, over and across the tracks, operating and non-operating property of Respondent, and authorizing construction of Petitioner's proposed project thereover and thereon, in accordance with the

JLS/bdr
12-19-67

proposals contained herein and for such other and further order as may be just and proper in the premises.

Dated at Salem, Oregon, this 22nd day of December, 1967.

STATE OF OREGON, by and through
its State Highway Commission

G. E. ROHDE
Assistant Attorney General and Chief
Counsel for the State Highway Commission

By_____
JACK L. SOLLIS
Utilities & Railroad Attorney

STATE OF OREGON)
) ss
County of Marion)

I, R. L. PORTER, being first duly sworn, say that I am Deputy State Highway Engineer for the Oregon State Highway Commission and that the foregoing Petition is true as I verily believe.

R. L. PORTER

Subscribed and sworn to before me this 26th day of December, 1967.

JACK L. SOLLIS
Notary Public for Oregon
My commission expires December 19, 1968

I certify that the above is a true and correct copy of the foregoing Petition and the whole thereof.

Jack L. Sollis
JACK L. SOLLIS
Utilities & Railroad Attorney

JES/bdr
12-19-67

PUX 667

BEFORE THE PUBLIC UTILITY COMMISSIONER OF OREGON

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "Project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon.	A M E N D E D P E T I T I O N Docket No. SXF 430

The petitioner herein respectfully represents:

I

That the name and address of your petitioner is the State of Oregon, by and through its State Highway Commission, State Highway Building, Salem, Oregon 97310.

II

That this Petition is made under the authority of ORS 366.205, 374.015 (3) and 374.020.

III

The petitioner proposes to construct the East Fremont Interchange structures, which are a part of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, in part upon, over and across the tracks, right of way, operating and non-operating property of Respondents - Union Pacific Railroad Company and Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; that said Interchange forms the connection between the Pacific Highway, State

Primary No. 1 and the proposed Fremont Bridge, both of which are component parts of Throughways; that the construction details of said project, the points of intersection of petitioner's proposed Overcrossing structures and Respondents' tracks, the angles of intersection, grades, clearances and other pertinent engineering details appear upon petitioner's Drawing, marked Exhibit "A", Drawings Nos. P-8958-A, B, C, D and E, and 23508 attached to the original application and by this reference made a part hereof. Drawing No. P-8958-A shows horizontal alignment in the area of the Respondents' property. Drawings Nos. P-8958-B and C show elevations and span arrangements for the various roadways through the Respondents' property. Drawings Nos. P-8958-D and E are pier elevations. Drawing No. 23508 shows the location of the piers in relationship to Respondents' tracks. The super-structure of the structures will consist of curved steel box girders with a concrete deck. The pier shafts will be of reinforced concrete with the footing supported by steel piling.

IV

That the estimated annual average daily traffic over the Fremont Bridge and said structures upon completion in 1970 will be 49,000 vehicles, with an estimated increase in 1980 to 55,000 vehicles.

V

That an Undercrossing of said tracks and property of Respondents is not feasible due to the close proximity of said tracks to the Willamette River, a navigable stream; that due to the high traffic density upon the new highway, a public safety would not permit the construction of a crossing at grade.

VI

That ORS 374.020 does not require an agreement between petitioner and railroad before conferring jurisdicition herein on the Public Utility Commissioner.

VII

That if this petition is allowed and a certificate of convenience and necessity is issued, the following conditions should be set forth in said certificate:

THINGS TO BE DONE BY STATE:

(a) Prepare plans and specifications and award a contract or contracts for the construction of the proposed grade separation structures, including highway approaches and supervise the construction thereof.

(b) Finance the construction of said project, without participation therein by funds of Respondents, from State and Federal Highway Funds, including reimbursement to Respondents for the cost of necessary expenditures incurred in connection with the construction of said project under the accounting practices contained in PPM 30-3, issued by the Bureau of Public Roads under date of October 15, 1966, and amendments and supplements thereto, and in accordance with the items controlled by PPM's 80-1 through 80-5, issued by the Bureau of Public Roads under date of April 15, 1967.

(c) Maintain the said Overcrossing structures, with their appurtenances and approaches, after completion of the project.

THINGS TO BE DONE BY RESPONDENT RAILROADS:

(a) Subject to reimbursement under Federal Regulations, referred to heretofore, furnish such engineering, inspection, watchman and flagman services as may be necessary to protect Railroad operations during the period of construction of the project.

(b) Subject to reimbursement under Federal Regulations, referred to heretofore, build a new yardman's locker building outside the hereinafter described easement area on property owned by Respondent Railroads, and move and re-establish the Club House on other property owned by Respondent Railroads outside of said easement area.

(c) Subject to reimbursement under Federal Regulations, heretofore referred to, remove and replace existing signal and communication lines and protect the same during construction.

(d) At their own cost and expense, maintain the Railroad tracks with their appurtenances and facilities.

JLS:ja
10-30-67

VIII

That there will be no impairment of vertical or horizontal clearances less than prescribed by the Rules and Regulations of the Public Utility Commissioner.

IX

That the proposed project will be on, over and across the following described property of Respondent Railroads in the City of Portland, Oregon, to-wit:

PARCEL 1

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ALSO that portion of said Lots 4 and 5 lying Southeasterly of said connection centerline.

(Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.)

JLS:ja
10-30-67

The parcel of land to which this description applies contains 8,650 square feet, more or less.

PARCEL 2

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ALSO that portion of said Lot 1, lying Northwesterly of said centerline.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

JLS:ja
10-30-67

PARCEL 4

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Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet;

All of said parcels being in the City of Portland, Multnomah County, Oregon.

X

That if this petition is allowed petitioner will impose the following restrictions on the real property of the respondent described in paragraph IX above.

1. In conducting its operations in the easement area hereinabove described, Respondent Railroads, their successors, legal representatives and assigns shall not:

   A. Construct any buildings or structures that are not of fireproof construction.

   B. Construct any buildings or structures, or conduct any activity above a curved horizontal plane which is 8 feet below the underside of said highway structures.

   C. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

   D. Interfere with any of the piers, decks, light or drainage facilities.

   E. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

   F. Have any rights of access of any nature between the roadways of the highway structure constructed on said easement area from the Railroads' property adjacent thereto.

G. Build any buildings or structures above the highway structures constructed on or above said easement area.

2. The State Highway Commission and/or its contractors shall have access across said easement area for the purpose of maintenance and reconstruction of said piers, decks, lights and drainage facilities, so long as said access and activities do not interfere with railroad operations. In the event any work is done in the easement area by a contractor of the State Highway Commission, the contractor shall provide Respondent Railroads with acceptable property damage and personal liability insurance prior to commencing work.

XI

That the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee, are the only parties affected by this proposed construction.

XII

WHEREFORE, Petitioner prays for an Order find that public convenience and necessity require the construction of said Overcrossing structures on, over and across the tracks, operating and non-operating property of Respondent, and authorizing construction of Petitioner's proposed project thereover and thereon, in accordance with the

proposals contained herein and for such other and further order as may be just and proper in the premises.

Dated at Salem, Oregon, this 22nd day of December, 1967.

STATE OF OREGON, by and through
its State Highway Commission

G. E. ROHDE
Assistant Attorney General and Chief
Counsel for the State Highway Commission

By_____
JACK L. SOLLIS
Utilities & Railroad Attorney

STATE OF OREGON)
) ss
County of Marion)

I, R. L. PORTER, being first duly sworn, say that I am Deputy State Highway Engineer for the Oregon State Highway Commission and that the foregoing Petition is true as I verily believe.

R. L. PORTER

Subscribed and sworn to before me this 26th day of December, 1967.

JACK L. SOLLIS
Notary Public for Oregon
My commission expires December 19, 1968

I certify that the above is a true and correct copy of the foregoing Petition and the whole thereof.

JACK L. SOLLIS
Utilities & Railroad Attorney

RECEIVED
JAN 8 - 1968

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

I-405-8(22)304
1310

2528 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

DECEMBER 22, 1967

File Ref. D 9010 - 32 - 17

2145

Mr. Forrest Cooper,
State Highway Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. F. B. Klaboe,
Assistant State Highway Engineer

Dear Sir:

File R-36087 - Union Pacific Railroad Company
Fremont Interchange-Sunset Interchange Section
Stadium Freeway

Replying to your letter of December 4 concerning relocation of railroad facility commonly referred to as the NATIONAL CARLOADING BUILDING due to the captioned State highway project:

The area immediately north of the present site still appears to be the only one feasible for relocation of this facility, and we can suggest no alternate locations at this time. However, in the event your staff has any alternate sites to suggest, we would be pleased to consider them.

Yours very truly,

W. D. Johnson
HSD

12-26-67
REFERRED TO
Morgan - Litchfield - Soder
BY ASST. STATE HWY. ENGR.
Orig to Barbee

Routing

Morgan	Peaso
Decker	Morelock
Bond	Trout
Barbee	Scott
Walker	Wills
Glenn	Litchfield
Swan	Olson

RECEIVED
DEC 27 1967
CONSTRUCTION DIVISION

RECEIVED
DEC 26 1967
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F. B. KLABOE

Discussed w/Vestey -
copy sent to Metro.
12/27/67
ASH.

RECEIVED
DEC 5 - 1967
FOR FILE
I-405-8(22)304
7310

December 4, 1967

Mr. A. W. Fersen
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

Dear Mr. Fersen:

Re: B-36037
I-405-8(4) 303 08-35.7
Union Pacific Railroad
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway

On the basis of information furnished by the Union Pacific Railroad and Mr. Diffenderfer's reply to that information, it is now our position that the Garland building referred to as the National Carloading Building should be considered as operating property under PPM 30-3 and therefore qualifies for a replacement of the building function under the above PPM.

There are no Oregon Statutes or Court decisions that define "operating property" as it applies to this situation.

We hereby request your concurrence as soon as possible so that we may continue negotiations with the Railroad for the acquisition of the right-of-way needed for the East Fremont Interchange.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc Forrest Cooper
R. L. Porter
Victor D. Wolfe
G. E. Rohde, attn. Jack Sollis
F. D. Morgan
A. E. Johnson

By

F. B. Kinbee
Assistant State Highway Engineer

JLS:lf ms

RECEIVED
DEC 5 - 1967
FOR FILING

I-405-8(22)304
7310

December 4, 1967

Mr. W. G. Johnson, Superintendent
Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

Dear Mr. Johnson:

Re: File R-36007
Union Pacific Railroad Company
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway

In reviewing the proposed relocation of the National Carloading building to the north of where it is now, it appears that this would be extremely costly.

While the question of whether or not this is operating property is still unresolved, we would welcome the submission of any alternate locations for this building in order that we might study them.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Kiebes
Assistant State Highway Engineer

cc Forrest Cooper
R. L. Porter
Victor D. Wolfe
G. H. Rohde, Attn. Jack Sollis
F. D. Morgan
A. E. Johnson

JLS:lf ms

RECEIVED
NOV 21 1967

JAMES WILSON DIFFENDERFER -- 115 EAST BENEDICT AVENUE -- HAVERTOWN, PENNSYLVANIA 19083

FOR FILING
I-405-8(22)304
7310

16 November 1967

Mr. Fred B. Klaboe
Assistant State Highway Engineer
State Of Oregon
State Highway Department
Salem, Oregon 97310

Subject: R-36087, I-405-8(4)303, 08-35.7
Union Pacific Railroad, Fremont Interchange-Sunset Interchange Section, Stadium Freeway

Dear Mr. Klaboe:

In reply to your letter of November 14, regarding the status of the National Carloading property at the Union Pacific Albina Yard in Portland, I must clarify my explanation and use of the term "operating property" which I meant in the literal or "true"sense(as I referred to it in my report) as being that which was needed in the operation of trains, as contrasted with some ancillary or supporting function. It is true that there is, to my knowledge, no clear-cut definition of what constitutes "operating property", except as may have been attempted to be defined in the courts.

It was for this reason that I made reference on page 59 of my report to the fact that "the warehouse serves as an essential source of business for the railroad, being a location where it receives and delivers freight in carload lots." Hence, my reference to ORS 374.020, which, by association of properties of this nature with those of "tracks, station grounds, and other operating properties of any common carrier railroad...." really puts this in a classification with operating properties in the legal sense. Thus, I was led to recommend on page 60 that this facility be relocated as part of the bridge project.

NOTED
F. B. KLABOE

Regardless of the literal or legal definition of "operating property", the open platform or loading dock at the north end of the building was not involved in my discussion of the National Carloading facility wherein I referred to the "building" or "warehouse" and was rightfully included in my recommendations for relocation under any circumstance.

It seems even more clear that at the present time, on the basis of the facts presented in the copy of Mr. James Bergmann's letter of November 7, accompanying your letter of November 14, that with the Union Pacific Railroad making use of the building for its own purposes, there is no question of its status as an operating property in even the "liberal" sense I had used previously, notwithstanding what it might always have been in the legal sense. I am not a lawyer and will not even pretend to pass upon the legal interpretation of what is operating property but was convinced in my mind that it was sufficiently essential, integral to the Railroad's operations as to warrant its being relocated as part of the highway project. By any definition, both the National Carloading Building in its present use and the loading dock may be classified as operating property.

RECEIVED
NOV 20 1967
OFFICE OF
STATE HIGHWAY ENGINEER

Sincerely,

James W. Diffenderfer, P. E.

REFERRED TO
By Asst. State Hwy. Engr.

FORM S-123

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
HELIX

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

November 2, 1967

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97301

Re: File R-36087
Project No. I-405-8(4)303
Permanent Easement
Union Pacific Railroad Co.
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway

Dear Sir:

On this file the Oregon State Highway Department is not acquiring fee title to the land needed for the east approaches to the Fremont Bridge as they cross the property of the Union Pacific Railroad Company. The reason that fee title with complete access control is not being acquired is that the approaches cross the main switching yard of the railroad and to cut this would result in damages to the railroad of an undetermined amount, but an estimate of in excess of one million dollars would not be unrealistic.

By just taking a permanent easement with certain restrictions we are reducing the right of way acquisition cost very greatly, with a minimum affect on the railroad operations.

The Railroad would also like to purchase from the State Highway Commission some land it owns under the bridge approach. This area is shown outlined in red on Exhibit "B". This land would be sold only if we reach an agreement with the Railroad without resorting to condemnation. It would be appraised before it was sold and would be sold subject to the same restrictions as the permanent easement we are acquiring from the railroad with a permanent easement reserved to the State Highway Commission for the bridge approaches.

RECEIVED
NOV 3 1967
OFFICE OF
HIGHWAY ENGINEER

NOTED
R. L. PORTER

All buildings belonging to the Railroad in or partially in the area colored in yellow on Exhibit "B" will be removed.

The legal authority for the State Highway Commission to acquire this permanent easement is ORS 374.035.

The Railroad owns a lot of land in this area. Most of the area to the North of the taking, as shown on Exhibit "B" between the blue line is owned by the Railroad and also the areas outlined in blue to the South of the taking.

Attached as Exhibit "A" is a copy of the descriptions, nature of the easement and the restrictions placed on the railroad's continued use of the easement area.

You will find attached as Exhibit "B" a copy of a map showing the area to be acquired and the location of piers thereon.

You will find attached as Exhibit "C" drawings showing the vertical clearance of the highway structures over the railroad tracks.

We request your approval and then forwarding of the material to the Director for final approval.

Very truly yours,

G. E. ROHDE
Chief Counsel

By
JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:ja
Attachments

cc: R. L. Porter
F. B. Klaboe
G. E. Rohde
Frank C. McKinney
T. W. Litchfield

EXHIBIT "A"

EASEMENT

A permanent easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary related highway facilities over, upon and across the following described parcels of real property:

PARCEL 1:

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which centerline is described as follows:

Beginning at Engineer's centerline Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36°39' East) 440 feet; thence North 31°09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34°54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88°31'30" East) 1308.67 feet to Engineer's Centerline Station "SW" 326+63.33.

Also that portion of said Lots 4 and 5, lying Southeasterly of said connection centerline.

(Bearings used herein are based upon the Oregon Coordinate System, North Zone.)

The parcel of land to which this description applies contains 8,650 square feet, more or less.

PARCEL 2:

A parcel of land lying in Lot 7, Block 1, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described as follows:

Beginning at Engineer's centerline Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on an 11,459.16 foot radius curve left (the long chord of which bears South 44°26' West) 913.33 feet; thence South 42°09' West, 362.16 feet to Engineer's centerline Station "WE" 343+61.92.

Also that portion of said Lot 7, lying Northwesterly of said centerline.

(Bearings used herein are based upon the Oregon Coordinate System, North Zone.)

The parcel of land to which this description applies contains 5,260 square feet, more or less.

PARCEL 3:

A parcel of land lying in Lots 1 and 2, Block 2, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

Also that portion of said Lot 1, lying Northwesterly of said centerline.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

PARCEL 4:

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

PARCEL 5:

A parcel of land lying in the NW¼ of Section 27, Township 1 North, Range 1 East, W.M., Multnomah County, Oregon;

the said parcel being that portion of said Block lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway which connection centerline is described in Parcel 1 and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

PARCEL 6:

A parcel of land lying in Block 74, Albina in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet.

1. In conducting its operations in the easement area, Railroad, its successors, legal representatives and assigns shall not:

   A. Construct any buildings or structures that are not of fireproof construction.

   B. Construct any buildings or structures, or conduct any activity above a curved horizontal plane which is 8 feet below the under side of said highway structures.

   C. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

   D. Interfere with any of the piers, decks, light or drainage facilities.

   E. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

   F. Have any rights of access of any nature between the roadways of the highway structures constructed on said easement area from the railroad's property adjacent thereto.

   G. Build any buildings or structures above the highway structures constructed on or above said easement area.

2. The State Highway Commission and/or its contractors shall have access across said easement area for the purpose of maintenance and reconstruction of said piers, decks, lights and drainage facilities, so long as said access and activities do not interfere with railroad operations. In the event any work is done in the easement area by a contractor of the State Highway Commission, the contractor shall provide railroad with acceptable property damage and personal liability insurance prior to commencing work.

JLS:ja
10-30-67

PUX 667

BEFORE THE PUBLIC UTILITY COMMISSIONER OF OREGON

In the Matter of the Petition of the STATE OF OREGON, by and through its State Highway Commission, for a finding of public necessity and convenience and authorization thereunder for the construction of the East Fremont Bridge Interchange Structures of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, hereinafter called "Project" over, on and across the tracks and right of way of the Union Pacific Railroad Company and the tracks and right of way of the Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; said project is located in the City of Portland, Multnomah County, Oregon.

P E T I T I O N

Docket No._____

The petitioner herein respectfully represents:

I

That the name and address of your petitioner is the State of Oregon, by and through its State Highway Commission, State Highway Building, Salem, Oregon 97310.

II

That this Petition is made under the authority of ORS 366.205, 374.015 (3) and 374.020.

III

The petitioner proposes to construct the East Fremont Interchange structures, which are a part of the Fremont Interchange-Sunset Interchange Section of the Throughway known as the Stadium Freeway, in part upon, over and across the tracks, right of way, operating and non-operating property of Respondents - Union Pacific Railroad Company and Oregon-Washington Railroad & Navigation Company; Union Pacific Railroad Company, Lessee; that said Interchange forms the connection between the Pacific Highway, State Primary No. 1

and the proposed Fremont Bridge, both of which are component parts of Throughways; that the construction details of said project, the points of intersection of petitioner's proposed Overcrossing structures and Respondents' tracks, the angles of intersection, grades, clearances and other pertinent engineering details appear upon petitioner's Drawing, marked Exhibit "A", attached hereto and by this reference made a part hereof, and Drawings Nos.P-8958-A, B, C, D and E, and 23508. Drawing No. P-8958-A shows horizontal alignment in the area of the Respondents' property. Drawings Nos. P-8958-B and C show elevations and span arrangements for the various roadways through the Respondents' property. Drawings Nos. P-8958-D and E are pier elevations. Drawing No. 23508 shows the location of the piers in relationship to Respondents' tracks. The superstructure of the structures will consist of curved steel box girders with a concrete deck. The pier shafts will be of reinforced concrete with the footing supported by steel piling.

IV

That the estimated annual average daily traffic over the Fremont Bridge and said structures upon completion in 1970 will be 49,000 vehicles, with an estimated increase in 1980 to 55,000 vehicles.

V

That an Undercrossing of said tracks and property of Respondents is not feasible due to the close proximity of said tracks to the Willamette River, a navigable stream; that due to the high traffic density upon the new highway, public safety would not permit the construction of a crossing at grade; that the said Stadium Freeway is a part of the Interstate Highway System and the

construction of a grade crossing on the Interstate System is not permitted under Federal Highway Law, 23 U.S.C. Highways, and the Rules and Regulations set forth by the United States Department of Transportation, through its Bureau of Public Roads; that said Bureau's policy and procedure memoranda pertain to all Federal Aid Highways, including the National System of Interstate and Defense Highways, designated as the "Interstate System" and failure, by petitioner, to comply with said Federal Law, Rules and Regulations would result in loss of Federal participation therein; that this would result in a severe financial loss to the people of the State of Oregon, as the Federal participation in said project cost is approximately 92%.

VI

That petitioner has diligently sought, over a long period of time, to negotiate a construction agreement and property acquisition with Respondent Railroads without success; that petitioner has, in the past, following negotiations with Respondents, entered into many construction agreements and property acquisitions; that, in reliance upon past negotiating experience with the Respondents herein, petitioner and the Federal Government have designed and wish to construct said project upon an alignment which necessitates the crossing of tracks, operating and non-operating property, as shown on said Exhibit "A", and thereby have expended and have under commitments for the additional expenditure of Millions of Dollars; that Respondent Railroads refuse to authorize such

(c) Maintain the said Overcrossing structures, with their appurtenances and approaches, after completion of the project.

THINGS TO BE DONE BY RESPONDENT RAILROADS:

(a) Subject to reimbursement under Federal Regulations, referred to heretofore, furnish such engineering, inspection, watchman and flagman services as may be necessary to protect Railroad operations during the period of construction of the project.

(b) Subject to reimbursement under Federal Regulations, referred to heretofore, build a new yardman's locker building outside the hereinafter described easement area on property owned by Respondent Railroads, and move and re-establish the Club House on other property owned by Respondent Railroads outside of said easement area.

(c) Subject to reimbursement under Federal Regulations, heretofore referred to, remove and replace existing signal and communication lines and protect the same during construction.

(d) At their own cost and expense, maintain the Railroad tracks with their appurtenances and facilities.

JLS:ja
10-30-67

VIII

That there will be no impairment of vertical or horizontal clearances less than prescribed by the Rules and Regulations of the Public Utility Commissioner.

IX

That the proposed project will be on, over and across the following described property of Respondent Railroads in the City of Portland, Oregon, to-wit:

PARCEL 1

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which centerline is described as follows:

Beginning at Engineer's centerline Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36°39' East) 440 feet; thence North 31°09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34°54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88°31'30" East) 1308.67 feet to Engineer's Centerline Station "SW" 326+63.33.

ALSO that portion of said Lots 4 and 5 lying Southeasterly of said connection centerline.

(Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.)

JLS:ja
10-30-67

The parcel of land to which this description applies contains 8,650 square feet, more or less.

PARCEL 2

A parcel of land lying in Lot 7, Block 1, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described as follows:

Beginning at Engineer's Centerline Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on an 11,459.16 foot radius curve left (the long chord of which bears South 44°26' West) 913.33 feet; thence South 42°09' West, 362.16 feet to Engineer's Centerline Station "WE" 343+61.92.

ALSO that portion of said Lot 7, lying Northwesterly of said centerline.

(Bearings used herein are based upon the Oregon Co-ordinate System, North Zone.)

The parcel of land to which this description applies contains 5,260 square feet, more or less.

PARCEL 3

A parcel of land lying in Lots 1 and 2, Block 2, JOHN BRENDLE'S ADDITION to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

ALSO that portion of said Lot 1, lying Northwesterly of said centerline.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

JLS:ja
10-30-67

PARCEL 4

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

PARCEL 5

A parcel of land lying in the Northwest Quarter (NW¼) of Section 27, Township 1 North, Range 1 East, W.M., Multnomah County, Oregon; the said parcel being that portion of said Northwest Quarter (NW¼) lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which connection centerline is described in Parcel 1,and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

PARCEL 6

A parcel of land lying in Block 74, ALBINA in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southwesterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 36.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,715 square feet;

All of said parcels being in the City of Portland, Multnomah County, Oregon.

JLS:ja
10-30-67

1. In conducting its operations in the easement area hereinabove described, Respondent Railroads, their successors, legal representatives and assigns shall not:

   A. Construct any buildings or structures that do not meet the building code of the City of Portland.

   B. Construct any buildings or structures, or conduct any activity above a curved horizontal plane which is 8 feet below the underside of said highway structures.

   C. Construct any buildings or structures or conduct any activity within 5 feet of the supporting piers of said highway structures.

   D. Interfere with any of the piers, decks, light or drainage facilities.

   E. Manufacture or store on the ground or in buildings any inflammable, volatile or explosive substances.

   F. Have any rights of access of any nature between the roadways of the highway structure constructed on said easement area from the Railroads' property adjacent thereto.

   G. Build any buildings or structures above the highway structures constructed on or above said easement area.

JLS:ja
10-30-67

2. The State Highway Commission and/or its contractors shall have access across said easement area for the purpose of maintenance and reconstruction of said piers, decks, lights and drainage facilities, so long as said access and activities do not interfere with railroad operations. In the event any work is done in the easement area by a contractor of the State Highway Commission, the contractor shall provide Respondent Railroads with acceptable property damage and personal liability insurance prior to commencing work.

X

WHEREFORE, Petitioner prays for an Order finding that public convenience and necessity require the construction of said Overcrossing structures on, over and across the tracks, operating and non-operating property of Respondent, and authorizing construction of Petitioner's proposed project thereover and thereon, in accordance with the proposals contained herein and for such other and further order as may be just and proper in the premises.

Dated at Salem, Oregon, this 31st day of October, 1967.

STATE OF OREGON, by and through
its State Highway Commission
G. E. ROHDE
Assistant Attorney General and Chief
Counsel for the State Highway Commission

By_____
JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:ja
10-30-67

STATE OF OREGON)
) ss
County of Marion)

I, R. L. PORTER, being first duly sworn, say that I am Deputy State Highway Engineer for the Oregon State Highway Commission and that the foregoing Petition is true as I verily believe.

R. L. PORTER

Subscribed and sworn to before me this 31st day of October, 1967.

JACK L. SOLLIS
Notary Public for Oregon
My commission expires December 19, 1968

I certify that the above is a true and correct copy of the foregoing Petition and the whole thereof.

JACK L. SOLLIS
Utilities & Railroad Attorney

FORM E-123

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
HELIX

RECEIVED
OCT 25 1967
FOR FILE

I-405-1(03)304
7310

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310
October 23, 1967

NOTED
F. B. KLABOE

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97301

Re: File R-36087
Permanent Easement
Union Pacific Railroad Co.
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway

Dear Sir:

On this file the Oregon State Highway Department is not acquiring fee title to the land needed for the east approaches to the Marquam Bridge as they cross the property of the Union Pacific Railroad Company. The reason that fee title with complete access control is not being acquired is that the approaches cross the main switching yard of the railroad and to cut this would result in damages to the railroad of an undetermined amount, but an estimate of in excess of one million dollars would not be unrealistic.

By just taking a permanent easement with certain restrictions we are reducing the right of way acquisition cost very greatly, with a minimum affect on the railroad operations.

Attached as Exhibit "A" is a copy of the descriptions, nature of the easement and the restrictions placed on the railroad's continued use of the easement area.

You will find attached as Exhibit "B" a copy of a map showing the area to be acquired and the location of piers thereon.

RECEIVED
OCT 24 1967
OFFICE OF
STATE HIGHWAY ENGINEER

You will find attached as Exhibit "C" drawings showing the vertical clearance of the highway structures over the railroad tracks.

We request your approval and then forwarding of the material to the Director for final approval.

Very truly yours,

G. E. ROHDE
Chief Counsel

By
JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:ja
Attachments

cc: R. L. Porter
F. B. Klaboe
G. E. Rohde
Frank C. McKinney
T. W. Litchfield

RECEIVED
OCT 21 1967
FORM E-20 SOM 10-66
FOR FILING

I-405-8(22) 304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 19, 1967

SUBJECT: Assignment: FBK-1985
Air Easements and R/W Data
Fremont Bridge Section
Stadium Freeway (I-405)
City of Portland - Multnomah County

To:

Mr. F. B. Klaboe
Assistant State Highway Engineer
Building

1985

I-405-8(4) 303

copy 7298

Subject assignment requested a rough draft reply, however, data for such a reply has been provided to Jack Sollis as requested by assignment FBK-1973.

As requested by the Bureau of Public Roads, a new file (42134) has been set up for the additional permanent easement on parcel 35109. A revised right of way sheet was prepared and submitted to the BPR covering this additional acquisition. This was approved by letter dated October 10, 1967.

If further information or action is desired please advise.

F. D. Morgan
Construction Engineer

By A. Olson
A. D Olson
Urban Engineer

NOTED
F. B. KLABOE

ADO:jr

RECEIVED
OCT 19 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 12 1967

UNITED STATES GOVERNMENT

Memorandum

FOR ITEMS

Coiner
Perry
Munro Hodges
Litchfield

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : G. R. Brooks, Assistant Division Engineer
Salem, Oregon
Fremont Bridge

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: October 13, 1967

In reply refer to: 08-35.7

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section - Parcel 35107
City of Portland - Dock Commission

Staff Attorney Jack L. Sollis' letter of October 9, 1967 forwarded to us proposed use restrictions covering Parcel A of the above-mentioned file.

Our personnel have discussed with Mr. Sollis the No. 1 use restriction concerning the words "in bulk." It is our understanding that this terminology is to be removed from the use restriction. If the city desires to retain this portion of the terminology, a definition as to the meaning of "in bulk" will be secured. The use restriction should include a clause precluding any rights of access of any nature between the roadways of the highway structure from the city's property adjacent thereto.

In discussions with Mr. Sollis it is our understanding that there is no need to include access across the easement area for the purpose of maintenance and reconstruction of the bridge, as such access will be provided across Parcel 35105 and across the permanent easement to be secured from the city for the bridge pier.

As you are aware, paragraph 4, PPM 80-5 requires that right of ways of limited vertical dimension with private or public facilities occupying the space above and/or below the right of way must be approved by the Director in Washington, D.C.

Edwards
Rohde
Litchfield
Morgan
Merchant
Young 10-17-67
Porter 10-18-67

RECEIVED
OCT 16 1967
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
TOM EDWARDS

NOTED
TOM EDWARDS

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
OCT 21 1967

UNITED STATES GOVERNMENT

FOR *Memorandum*

TO Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

FROM : G. R. Brooks, Assistant Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
Parcel 36087, Union Pacific Railroad Company

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: October 13, 1967

In reply refer to: 08-35.7

Staff Attorney Jack L. Sollis' letter of October 9, 1967 forwarded for our preliminary review proposed use restrictions concerning the acquisition of an air easement for the Fremont Bridge over railroad property. We have reviewed the restrictions and concur that it would be proper to include them in the easement. As you are aware, paragraph 4 of PPM 80-5 requires a right of way of limited vertical dimension with private or public facilities occupying the space above and/or below the right of way must be approved by the Director in Washington, D. C.

10-17-67
Edwards
Rahde
Litchfield
Morgan
Merchant
Young

Porter -
10-18-67

NOTED
TOM EDWARDS

RECEIVED
OCT 16 1967
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
OCT 18 1967
FOR FILING

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON
PORTLAND
FRED W. HILL, MEMBER
HELIX

I-405-8(22)304
7310

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

October 17, 1967

Mr. L. J. Bergmann
General Attorney
Union Pacific Railroad Co.
727 Pittock Block
Portland, Oregon 97205

Re: File R-36087
Union Pacific Railroad Co.
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway

Dear Sir:

In reply to your telephone request of October 16, 1967, for additional information from Mr. Diffenderfer's report, the following two sentences were included in his report as part of the history of National Carloading:

"Current policy of National Carloading home and local offices has been to avoid routing transcontinental shipments via the Union Pacific insofar as practicable. Except for local switching by the Union Pacific, most of the National Carloading traffic moves eastward via Great Northern or Northern Pacific."

Very truly yours,

G. K. ROLLIE
Chief Counsel

By
JACK L. SOLLIS
Utilities & Railroad Attorney

NOTED
F. B. KLABOE

JLS:ja

cc: Mr. Frank C. McKinney
Mr. F. B. Klaboe
Mr. T. W. Litchfield

Mr. W. G. Johnson, Supt.
Union Pacific Railroad Co.
2525 N. Larrabee Avenue
Portland, Oregon 97227

RECEIVED
OCT 17 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 1 1 1967

Memorandum

Copies
TO: Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon
Mrs. Ford Carol

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: October 10, 1967

In reply refer to: 08-35.7

FROM : A. W. Parsons, Division Engineer, by C. J. Mathias, Div R/W Officer
Salem, Oregon
Fremont Br Sec

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section

Attached is approved right of way plan sheet no. 3 which was forwarded to this office by Mr. L. H. Young's letter of October 3, 1967.

Approval is with the understanding that the permanent easement use restriction to be acquired under File 42134 will conform to your bridge consultant's recommendations concerning building distance restrictions for fire protection.

A field inspection indicated that excavation is beginning for a building improvement to be placed upon the northerly portion of File 42134. In order to conserve highway funds and to avoid hardship on the property owner, immediate steps should be taken to initiate negotiations to acquire the needed easement and prevent any construction that does not conform to the bridge consultant's requirements. This information was brought to the attention of Mr. Oakes on October 10, 1967.

NOTED
F. B. KLABOE

10-12-67

REFERRED TO
Merchant - Morgan - Young
BY ASST. STATE HWY. ENGR.
Please take proper action

RECEIVED
OCT 11 1967
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: September 20, 1967

In reply refer to: 08-35.7

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(4)303, Fremont Bridge Section

Returned are approved copies of revised right of way plan sheets nos. 2, 3, and 4 for the above-mentioned project.

Regarding Parcels 36087, 35105, and 35107 it will be necessary for the State to submit for approval of the Director in Washington, D.C. acquisition of rights of way of limited vertical dimensions, as required by paragraph 4c of PPM 80-5. Action on your submission should be initiated through this office as soon as your plans are solidified to the point that you can provide the information needed as outlined in Attachment 3 of PPM 80-5.

Plan sheet no. 3, Parcel 35109, which is outlined in blue, does not comply with your bridge consultant's recommendation as to adequate right of way for fire protection of the structure. You should take immediate steps to prepare plans and secure our approval to acquire the additional needed width for the area lying westerly of North Loring Street. It is our understanding that the area immediately adjoining Parcel 35109 is unimproved.

new file set up 42134 for permanent easement, use restriction — being processed for submission to BPR 9/27/67 ASA. approved 10/10/67 ASA

Enclosures
Plan sheets

approved sheets given to Dick Chase. ASA. 10-25-67 orig to Morgan-R/W w/encls

Routing

Morgan
Decker
Bond
Barbee
Walker
Glenn
Swan

RECEIVED
SEP 26 1967
CONSTRUCTION DIVISION

Peaze
Morelock
Trout
Scott
Wills
Litchfield
Oleon

RECEIVED
SEP 22 1967
OFFICE OF STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
OCT 5 - 1967
FOR FILING

I-405-8(22)304
1310

October 4, 1967

Mr. W. G. Johnson, Superintendent
Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97277

Re: File R-36087
Union Pacific Railroad Co.
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway

Dear Mr. Johnson:

With reference to our discussion with your officials on Monday, October 2, 1967, concerning the status of the National Carloading Building as operating or nonoperating property, our decision is based on the study conducted by our consultant, Mr. James M. Diffenderfer.

Mr. Diffenderfer concluded that the building was non-operating property because "It is not used by the railroad to receive or deliver, load or unload freight. It is not operated by the railroad and never has been." Under the circumstances, we feel that this operation falls into the same category as any other customer served by rail whether or not he occupies railroad property.

Any factual information you may be able to provide which would indicate that this is in fact operating property will be given our consideration. If there are any provisions in your lease with National Carloading that would help, a copy of the lease would be most helpful.

As it may take some time for the Bureau of Public Roads to resolve the question of whether the National Carloading Building is operating or nonoperating property, we must renew our request for either a permit of entry or a waiver of your rights

under OES 374.020, as set out in my letter of September 26, 1967. It is necessary that we have this by October 20, 1967, or it will be necessary for us to file a petition with the Public Utility Commissioner for a certificate of necessity to condemn the easement area in order to be assured that we will have possession of the property to be in a position to let a contract for the main bridge piers in January 1968, and the east approaches in the latter part of 1968.

I sincerely hope you will give this last request your serious consideration.

In regard to the restrictions on the property in the easement area, they are being rewritten and will be forwarded to you when completed.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klabee
Assistant State Highway Engineer

cc R. E. Naacke
District Engineer

L. J. Bergmann
General Attorney

M. P. Durrant
Division Engineer

R. L. Porter
I. D. Merchant
T. W. Litchfield
G. E. Rohde
F. C. McKinney

FBK:JLS:ja kf

RECEIVED
SEP 29 1967
FOR FILING
I-405-1(22)304
7310

September 26, 1967

Mr. M. G. Johnsen, Supt.
Union Pacific Railroad Company
2525 N. Larrabee Avenue
Portland, Oregon 97227

Re: File R-36087
Union Pacific Railroad Company
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway
Multnomah County

Dear Mr. Johnsen:

With reference to the above file and Mr. Klabee's letter to you of August 7, 1967, please be advised that we are now prepared to recommend to the Commission the sum of $112,000.00 for an easement over the property as shown outlined in red on the attached map and the National Carloading Building. The easement will contain the restrictions as set forth in Mr. Klabee's letter of August 7. The amount of $112,000.00 includes $38,325.00 for the National Carloading Building and the remainder is for the easement subject to the restrictions.

We have requested concurrence from the Bureau of Public Roads for the sale to your company of the land we own, which will be under the proposed bridge, and a reply should be forthcoming shortly.

As regards the vacation of certain streets in the area, we will cooperate with your company in this matter with the understanding that any streets which may be vacated that will become a part of the land owned by your company, over which we are acquiring an easement, will be subject to the same restrictions as the easement we are acquiring.

Mr. Durrant and Mr. Taber are going to meet with Mr. Merchant and Mr. Barbee on Monday, October 2, at 10:00 a.m. and Mr. Sollis has set up a meeting with the Bureau of Public Roads for 1:00 p.m. that afternoon so that you people may discuss with the Bureau of Public Roads the status of the National Carloading

Building as to whether it is operating or non-operating. At this time, based on the study by Mr. Diffenderfer, the National Carloading Building is considered by the Bureau and ourselves to be non-operating property. It would be very helpful if Mr. Burrent and Mr. Tabor could bring any written information or documentation that could be used for study by ourselves and the Bureau of Public Roads regarding the status of the National Carloading Building.

We are interested in getting this matter settled as soon as possible and if we cannot reach an agreement as to the compensation to be paid for the easement and National Carloading Building, we would appreciate one or the other of the following:

1. A permit of entry to enter on all of the property needed for the highway construction, by June 1, 1968, and if we have been unable to agree upon a figure by that time then we would have the right to file a condemnation suit in the Circuit Court to determine just compensation. This permit of entry would have to provide that all buildings in the construction area would have to be removed by June 1, 1968.

2. A letter from your company stating that you would waive the provisions of ORS 374.020 relating to the necessity of constructing a bridge across your yards, and in the event we cannot reach a settlement by November 1, 1967, we may file a condemnation suit in the Circuit Court for the determination of just compensation.

We appreciated the time given by your officials last Friday on the discussion of this matter and I sincerely hope that we will be able to reach a settlement on this file.

Very truly yours,

Forrest Cooper
State Highway Engineer

By
R. L. Porter
Deputy State Highway Engineer

RLP:JLS:ja

cc Forrest Cooper
F. E. Kleiboe
V. D. Wolfe
F. D. Morgan
O. E. Bohlo
Jack Sollis
I. D. Merchant

RECEIVED
OCT 13 1967
FORM E-20 SOM 10-66
FOR FILING

I-405-8(22) 304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 21, 1967

SUBJECT: File R-36087
Union Pacific Railroad Co.
Fremont Bridge Section
Stadium Freeway

To: Mr. F. B. Klaboe
Asst. State Highway Engineer

Building

The breakdown on our appraisal of $112,000 on this property as as follows:

Parcel 1:	8,650 square feet at $.50		$ 4,325.00
Parcel 2:	5,260 square feet at $.50		$ 2,630.00
Parcel 3:	3,950 square feet at $.10		$ 395.00
Parcel 4:	5,250 square feet at $.05		$ 262.00
Parcel 5:	91,476 square feet at $.50		$45,738.00
Parcel 6:	1,715 square feet at $.05		$ 85.00
	Total square feet - 1,163.01	Total	$53,435.00

The estimate from Charles S. Camplan on the reconstruction new of the building is $109,704.00. Of this $23,060.00 is the cost of the platform, leaving a building value of $65,882.00. The deck area after taking and if all is retained is excessive. A recovery of $7,500.00 is estimated; thus a loss of $58,325.00 on the building.

Thus the total of the land and building comes to $111,760.00 which has been rounded to $112,000.00.

A copy of the right of way map with the parcels outlined thereon is attached hereto.

Jack L. Sollis
JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:ja
Attachment

cc: G. E. Rohde
Frank C. McKinney
T. W. Litchfield

RECEIVED
SEP 21 1967
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F. B. KLABOE

RECEIVED
AUG 9 1967
FOR FILING

I-405-8(22)304
7310

Copy # 1275

August 7, 1967

Mr. W. G. Johnson, Supt.
Union Pacific Railroad Company
2525 N. Larrabee Avenue
Portland, Oregon 97227

Re: File R-36087
Union Pacific Railroad Company
Fremont Interchange-Sunset Interchange Section

Stadium Freeway
Multnomah County

Dear Mr. Johnson:

A review of the file indicates that no formal offer has been made since the taking was revised several months ago. Therefore, this letter formally states the offer so that you may at your earliest convenience give us your decision on whether to accept our offer or not.

The State Highway Commission has found it necessary to acquire permanent easements across the following described real property so that the Fremont Interchange-Sunset Interchange Section of the Stadium Freeway may be properly located, constructed, improved and maintained. The easements and real property across which these easements are required are as follows, to-wit:

A perpetual and exclusive easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary related facilities over, upon and across the following described parcels of real property:

PARCEL 1:

A parcel of land lying in Lots 2, 3, 4 and 5, Block 1, John Brandle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said lots included in a strip of land 45 feet in width, lying on the Northwesterly side of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway, which centerline is described as follows:

Beginning at Engineer's centerline Station "SW" 303+85.65, said Station being 1108.95 feet South and 1025.24 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on a 2291.83 foot radius curve left (the long chord of which bears North 36°39' East) 440 feet; thence North 31°09' East, 229.01 feet; thence on a spiral curve right (the long chord of which bears North 34°54' East) 300 feet; thence on a 763.94 foot radius curve right (the long chord of which bears South 88°31'30" East) 1308.67 feet to Engineer's Centerline Station "SW" 326+63.33.

Also that portion of said Lots 4 and 5, lying Southeasterly of said connection centerline.

(Bearings used herein are based upon the Oregon Coordinate System, North Zone.)

The parcel of land to which this description applies contains 8,650 square feet, more or less.

PARCEL 2:

A parcel of land lying in Lot 7, Block 1, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lot 7 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described as follows:

Beginning at Engineer's centerline Station "WE" 330+86.43, said Station being 161.29 feet South and 90.07 feet West of the intersection of the centerline of N. Mississippi Avenue with the centerline of N. Stanton Street; thence on an 11,459.16 foot radius curve left (the long chord of which bears South 44°26' West) 913.33 feet; thence South 42°09' West, 362.16 feet to Engineer's centerline Station "WE" 343+61.92.

Also that portion of said Lot 7, lying Northwesterly of said centerline.

(Bearings used herein are based upon the Oregon Coordinate System, North Zone.)

The parcel of land to which this description applies contains 5,260 square feet, more or less.

PARCEL 3:

A parcel of land lying in Lots 1 and 2, Block 2, John Brendle's Addition to the Town of Albina in the City of Portland, Multnomah County, Oregon; the said parcel being that portion of said Lots 1 and 2 included in a strip of land 45 feet in width, lying on the Southeasterly side of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

Also that portion of said Lot 1, lying Northwesterly of said centerline.

The parcel of land to which this description applies contains 3,950 square feet, more or less.

PARCEL 4:

A parcel of land lying in Block 55, Albina, in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the intersection of the Northeasterly line of N. Railroad Street and the Southerly line of N. Russell Street; thence Easterly along said Southerly line 150 feet; thence Southwesterly in a straight line to said Northeasterly line at a point 115 feet Southeasterly of said intersection point; thence Northwesterly along said Northeasterly line 115 feet to the place of beginning, containing 5,250 square feet, more or less.

PARCEL 5:

A parcel of land lying in the NW¼ of Section 27, Township 1 North, Range 1 East, W.M., Multnomah County, Oregon;

the said parcel being that portion of said NW¼ lying Westerly of N. Interstate Avenue; Northerly of N. Knott Street; Southeasterly of a line which is parallel to and 45 feet Northwesterly of the centerline of the connection between the Northbound lane of the Pacific Highway and the Southbound lane of the Stadium Freeway which connection centerline is described in Parcel 1 and Northwesterly of a line which is parallel to and 45 feet Southeasterly of the centerline of the connection between the Northbound lane of the Stadium Freeway and N. Ivy Street, which connection centerline is described in Parcel 2.

The parcel of land to which this description applies contains 2.1 acres, more or less.

PARCEL 6:

A parcel of land lying in Block 74, Albina in the City of Portland, Multnomah County, Oregon; the said parcel being described as follows:

Beginning at the most Easterly corner of said Block 74; thence Southeasterly along the Southeasterly line of said Block 74, a distance of 20 feet; thence Northwesterly parallel to the Northeasterly line of said Block 74, a distance of 86.5 feet; thence Northeasterly in a straight line to the Northeasterly line of said Block 74 at a point 85 feet Northwesterly of the place of beginning; thence Southeasterly along said Northeasterly line 85 feet to the place of beginning.

The parcel of land to which this description applies contains 1,713 square feet.

RESERVING, HOWEVER, to the Railroad the following described rights in said perpetual and exclusive easement area:

1. New buildings of fireproof construction, as provided by the building code of the City of Portland, may be constructed within the

exclusive easement area if the proposed construction meets the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967, and the plans have been furnished and notification is made to the State Highway Commission.

2. Railway tracks may be constructed, operated, maintained and reconstructed within the exclusive easement area in accordance with Oregon Public Utility Commissioner's regulations. The State Highway Commission shall be notified of the location of railway tracks constructed hereafter within the exclusive easement area. Railway tracks as relocated pursuant to an agreement between Railroad and the State Highway Commission and existing tracks not needing relocation may be operated, maintained and reconstructed.

3. Vehicular and pedestrian roadways and parking areas for motor vehicles may be constructed, used and maintained within the exclusive easement area.

4. Overhead and underground electric, telephone and telegraph circuits, water, oil, gas, steam, air, sewer and drainage lines and other such facilities required in your operations, as they are presently located or as they are relocated pursuant to an agreement in order to conform with the construction of the highway structures, may be operated, maintained, altered and reconstructed by Railroad within the exclusive easement area and additional such facilities may be constructed, operated, maintained and reconstructed within said exclusive easement area; provided that all applicable state and federal safety regulations are complied with. The State Highway Commission shall be notified of the location of the additional facilities.

5. Commodities of such kinds and in such quantities as are allowed pursuant to Interstate Commerce Commission regulations may be handled in Railroad's normal operations. There shall be no storage of inflammable, volatile or explosive substances within the exclusive easement area.

6. Passage may be had across the exclusive easement area at ground level to serve Railroad's property on each side of the exclusive easement area and such other use, when in Railroad's normal operations may be made of the exclusive easement area which is not inconsistent herewith.

In exercising the above reserved rights and in conducting operations on the exclusive easement, Railroad, its successors, legal representatives and assigns, shall comply with the following restrictions:

1. No buildings shall be constructed or storage of material made that does not meet the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967.

2. No building or activity shall extend above a curved horizontal plane which is eight feet below the under side of said highway structures.

3. No building or activity shall be permitted within five feet of the supporting bents of said highway structures in the exclusive easement area.

4. There shall be no interference with any of the other necessary related facilities of the State Highway Commission, as located within the exclusive easement area.

5. There shall be no rights of access of any nature between the roadways of the highway structures constructed on the exclusive easement area and Railroad's property adjacent thereto.

The State will build a new yardman's locker building and pay the costs of moving the club house, both of which are located in the exclusive easement area. State will pay the cost of relocating any tracks, signals or other track facilities necessitated by said construction.

We are not prepared at this time to offer a definite figure for the taking, but it will include the value of the easement taken and the present market value of the national car loading building.

The conveyance of the hereinabove described easements must be free and clear of all taxes, liens and encumbrances, including the proportionate part of the taxes, for the fiscal year during which the state takes possession of or receives title to said easements, whichever is the earlier.

It is my hope that you have sufficient information now at hand, with the exception of the amount to be paid, that we may meet in the near future and discuss the matter fully and by that time I believe we will have a definite figure to offer for the land and building taken.

We would like to meet with you next week and discuss this matter. If this is possible, please advise a time and place.

I also enclose 3 copies of a map showing the areas involved and the position of the structure piers. The piers colored red are on railroad property and the piers colored blue are on private property or in city streets.

Very truly yours,

FORREST COOPER
State Highway Engineer

By
F. B. KLABOE
Asst. State Highway Engineer

cc: Forrest Cooper
R. L. Porter
G. E. Rohde
F. D. Morgan
D. H. Moehring
T. W. Litchfield
A. E. Johnson

RECEIVED
JUL 31 1967

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 24, 1967

I-405-8(22)304
To: 7310

Mr. J. J. Smith
Right of Way Supervisor
State Highway Department
5821 N. E. Glisan Street
Portland, Oregon 97213

SUBJECT: R-36087
Union Pacific Railroad Co.
Fremont Interchange-Sunset
Interchange Section
Stadium Freeway
Multnomah County

Please have the two appraisals on this file revised as soon as possible, with the following instructions going to the appraisers:

1. The existing descriptions are still in effect.
2. The piers on railroad property will be located as shown on the attached map and colored in red; there are 6 piers on railroad property. The area that will be occupied by the piers and which the railroad cannot use at all is 2950 square feet for the 6 piers and restricted area around piers, as the footings will be below ground level.
3. The State will be acquiring over the described area a perpetual and exclusive easement for the construction, operation, inspection, maintenance and reconstruction of elevated highway structures and supporting bents and other necessary related facilities over, upon and across the land covered by the easements.

NOTED
F. B. KLABOE

RESERVING, HOWEVER, to the Railroad the following described rights in said perpetual and exclusive easement area:

7298

1. New buildings of fireproof construction, as provided by the building code of the City of Portland, may be constructed within the exclusive easement area if the proposed construction meets the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967, and the plans have been furnished and notification is made to the State Highway Commission.

2. Railway tracks may be constructed, operated, maintained and reconstructed within the exclusive easement area in accordance with Oregon Public Utility Commissioner's regulations. The State Highway Commission shall be notified of the location of railway tracks

constructed hereafter within the exclusive easement area. Railway tracks as relocated pursuant to an agreement between Railroad and the State Highway Commission and existing tracks not needing relocation may be operated, maintained and reconstructed.

3. Vehicular and pedestrian roadways and parking areas for motor vehicles may be constructed, used and maintained within the exclusive easement area.

4. Overhead and underground electric, telephone and telegraph circuits, water, oil, gas, steam, air, sewer and drainage lines and other such facilities required in your operations, as they are presently located or as they are relocated pursuant to an agreement in order to conform with the construction of the highway structures, may be operated, maintained, altered and reconstructed by Railroad within the exclusive easement area and additional such facilities may be constructed, operated, maintained and reconstructed within said exclusive easement area; provided that all applicable state and federal safety regulations are complied with. The State Highway Commission shall be notified of the location of the additional facilities.

5. Commodities of such kinds and in such quantities as are allowed pursuant to Interstate Commerce Commission regulations may be handled in Railroad's normal operations. There shall be no storage of inflammable, volatile or explosive substances within the exclusive easement area.

6. Passage may be had across the exclusive easement area at ground level to serve Railroad's property on each side of the exclusive easement area and such other use, when in Railroad's normal operations may be made of the exclusive easement area which is not inconsistent herewith.

In exercising the above reserved rights and in conducting operations on the exclusive easement, Railroad, its successors, legal representatives and assigns, shall comply with the following restrictions:

1. No buildings shall be constructed or storage of material made that does not meet the requirements of Bureau of Public Roads' Policy and Procedure Memorandum No. 80-5, dated April 20, 1967.

2. No building or activity shall extend above a curved horizontal plane which is eight feet below the

the under side of said highway structures.

3. No building or activity shall be permitted within five feet of the supporting bents of said highway structures in the exclusive easement area.

4. There shall be no interference with any of the other necessary related facilities of the State Highway Commission, as located within the exclusive easement area.

5. There shall be no rights of access of any nature between the roadways of the highway structures constructed on the exclusive easement area and Railroad's property adjacent thereto.

The State will build a new yardman's locker building and pay the costs of moving the club house, both of which are located in the exclusive easement area. State will pay the cost of relocating any tracks, signals or other track facilities necessitated by said construction, so these items should not be in appraised revision.

There will be no larger tract used in the appraisals.

Copies of Policy and Procedure Memorandum No. 80-5 are attached and pages 9 and 10 of the Policy and Procedure Memorandum and pages 1-3 of Attachment 3, even though drafted to cover future use of air space where fee title has been obtained generally, apply to this situation.

The appraisers are to assume the floor of the existing building occupied by National Carloading that is not occupied by piers or within the restricted area (5' out from all sides of piers) will be left for use by National Carloading as an open platform storage area.

The appraisers should provide a value figure for the National Carloading Building in its entirety, and also with the open storage dock area being left for their use.

JLS:rh
Encls.

JACK L. SOLLIS
Staff Attorney

RECEIVED
JUL 24 1967
STATE HIGHWAY ENGINEER

cc: Mr. F. B. Klaboe
Mr. G. E. Rohde
Mr. Frank C. McKinney
Mr. Theodore W. Litchfield
Mr. I. D. Merchant and Mr. A. E. Johnson

RECEIVED
JUL 14 1967

I-405-8(22)304
7310

OP*23687-736

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

5821 N. E. Glisan Street
July 11, 1967

To: MEMO TO THE FILE

SUBJECT: File No. 36087 -
Union Pacific Railroad
Fremont Bridge Section
Stadium Freeway

In an attempt to secure information relative to our request for permission to drill two test holes on the Union Pacific property, I phoned Glenn Tabor, the Assistant Division Engineer for the railroad.

He informed me that no permit would be issued for the test hole on the new revised line through their property. He stated that the railroad did not approve the line and, therefore, would not permit any drilling on this revision.

It is my understanding that permission to drill the other test hole will be forthcoming soon.

J. J. SMITH
DISTRICT RIGHT OF WAY
SUPERVISOR

JJS:cm

cc: A. E. Johnson
O. E. Rohde
D. H. Moehring

F. E. KLABOE
NOTED

METROPOLITAN ENGINEER
RECEIVED
JUL 11 1967
ME AME AME MOE MDE

RECEIVED
JUL 13 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUL 13 1967
FOR FILING

BP*23811-734

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 10, 1967

SUBJECT: File No. R-36087
Grantor: Union Pacific Railroad Co.
Fremont Interchange-
Sunset Interchange
Stadium Freeway Highway

To: Mr. James J. Smith
District Supervisor
State Highway Department
5821 N. E. Glisan Street
Portland, Oregon 97213

On this file we would now like two firm bids on the cost of moving the Union Pacific Club House, and a complete pictorial coverage of the National carloading building, both inside and out, and including the offices, so that when a new building is built they can be compared to see if there is any betterment.

G. E. ROHDE
Chief Counsel

By

JACK L. SOLLIS
Staff Attorney

JLS:rh

cc: Mr. R. L. Porter
Mr. T. W. Litchfield
Mr. Frank C. McKinney

NOTED
R. L. PORTER

RECEIVED
JUL 11 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 8 1967
FORM E-30 SOM 10-65
FOR FILES
E-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 14, 1967

To: Mr. F. B. Klaboe
Asst. State Highway Engineer

Building

SUBJECT: File 36087
Union Pacific Railroad Co.
Fremont-Sunset Interchange
Stadium Freeway
Multnomah County

On Monday, June 12, a meeting was held in my office with Mr. Kolberg, Mr. Draper, Mr. Castricano and Mr. Mead concerning the appraisals on the above file.

NOTED
R. L. PORTER

The appraisals will have to be revised and we will have to send letters of instruction to the appraisers. However, before we can send the new instructions we will have to know how many square feet of the easement area will be totally occupied by the pier footings and unusable, and for which we will have to pay full value, and how much of the taking will be usable by the Union Pacific Railroad Company for storage, parking and buildings. I have been informed by the bridge division that this information will not be available until after a meeting with the consultant engineers next week.

In addition, we will instruct the appraisers to take the value of the yardmens' locker building and the club house out of their appraisals, as they will be handled as operating property.

NOTED
F. B. KLABOE

We are also getting new estimates on the present replacement costs new on both of the above buildings and the national car loading building.

I feel we should write to Mr. Diffenderfer and ask him if by letting the Railroad build and store material under the structure, in addition to parking, it will eliminate the damages to the remaining yard due to loss of flexibility in future development, as set out on pages 74 and 75 of his report.

REFERRED TO
Porter
BY ASST. STATE HWY. ENGR.

Also attached is an estimate for doing work around national car loading in case the Court holds it to be operating property.

If you need any additional information please let me know.

Jack L. Sollis

JACK L. SOLLIS
Utilities & Railroad Attorney

JLS:ja
Attachment

cc: G. E. Rohde
Frank C. McKinney
T. W. Litchfield

RECEIVED
JUN 15 1967
OFFICE OF
STATE HIGHWAY ENGINEER

Form E-15—50M

OREGON STATE HIGHWAY DEPARTMENT

TABULATION SHEET

SHEET ..... OF ..... SHEETS

E. Fremont Interchange
Stadium Freeway Section
Relocation of National Carloading Warehouse

June 7-67
Urban Design
R.M. - 13.

	Item		Unit	Quan	Allow	Total	Unit Price	Amount
	General Excavation		Cu yd	14008	1402	15,410	1.00	15,410
	Conc Paving		Sq yd	2,521	252	2,773	6.00	16,638
	Leveling Course Base		Ton	368	37	405	2.50	1,013
	Top Course Base		Ton	48	5	53	3.00	159
	Class ½ A/C		Ton	86	9	95	12.00	1140
	Demolition		Sq ft	7639	764	8403	0.50	4202
	12" Water line		Lin ft	490	49	539	12.00	6468
	Drainage Excavation		Cu yd	370	37	407	3.00	1221
	12" Conc Pipe Storm		Lin ft	400	40	440	3.00	1320
	6" Perforated Pipe		Lin ft	400	40	440	2.25	990
	Conc Inlets 6B		Only	3	1	4	125.00	500
							Sub total	49061
						740 %	E & C	19639
							"	68700
	Const retaining wall (on piling)						"	144,000
					Total		"	212,700

This estimate includes these items only

(1) Grading, drainage & earthworks

(2) Paving of roadways & loading area

(3) Re-location of utilities (Kwater line)

APR 25 1967

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

Form 08-121 (11-63) (Prev. by A.O. 206-10) UNITED STATES GOVERNMENT

Memorandum

Salem

I-405-8(4)304

7310

477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: April 18, 1967

In reply refer to: 08-35.7

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

By: C. J. Mathias
Division Right of Way Officer

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
Parcel 36087, Union Pacific Railroad

It is our understanding that you are awaiting a consultant's study concerning the Union Pacific Railroad property before proceeding with right of way negotiations. Your latest review appraisal dated March 16, 1967, covering the acquisition of six parcels is $257,000 based upon fee appraiser Elmer F. Kolberg's appraisal report of March 7, 1967.

Our preliminary review indicates several areas of the appraisals that should be further explored before any offer is made to the property owner:

7218

1. Mr. Kolberg's appraisal does not include any allowance for kitchen equipment in the clubhouse and lockers, plus counters, in the trainmen's quarters. An analysis should be made and a legal opinion obtained as to whether or not this equipment constitutes real or personal property. This comment involves parcel no. 1.

2. Concerning parcel no. 5, Mr. Kolberg's depreciated replacement cost of the National Carloading warehouse is $96,000. In his original appraisal the depreciated replacement cost was $86,500. This raise was made without any explanation.

The original appraisal included spur track (270 lineal feet) at $2,160 but this was omitted in the revised appraisal without explanation.

NOTED
F. B. KLABO

3. The original appraisal set forth a land value of $1 per square foot based upon a fee taking and assuming access would be permitted across the right of way in areas unrestricted by bridge columns. The revised appraisal is at $1 per square foot, but it is based upon a new assumption that the property owner can use the area under the structures for (a) access to/from with cars, trucks, rail, and (b) parking for vehicles and rail cars. This appraisal

(more)

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

morgan
Litchfield
Merchant
Young
4-25-67

allows full fee value for the taking. Inasmuch as the property will retain parking rights under the structures it would seem that less than full fee value should be allowed for the taking. Further analysis is required.

4. We also noted a number of other minor changes and discrepancies in the revised appraisals which do not materially affect the final value estimate. However, we will be happy to go over them with your Review Section in order that all questionable items be resolved prior to the start of negotiations.

We also wish to bring to your attention our letter of February 23, 1967 concerning the consultant's agreements to the east and west approaches to the Fremont Bridge. Prior to our approval of any preliminary bridge design we should be furnished the James W. Diffenderfer report covering the railroad facilities. This report could affect the appraisal assumptions upon which the present review appraisal is based. We urge your early attention to securing the Diffenderfer report.

RECEIVED
APR 21 1967
STATE HIGHWAY ENGINEER

RECEIVED
SEP 20 1966

FORM CO-121 (9-22-59)
(FORM 97 A.R. 204-10)
I-405-8(2)64
7310

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engr
Salem, Oregon

DATE: September 21, 1966

08-35.7

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

By: G. R. Brooks
District Engineer

36087

SUBJECT: Oregon Project I-405-8(4)303
Fremont Bridge Section
Revised Right of Way Plan Sheet No. 2
(Mr. L. H. Young's September 8 letter)

Returned herewith is the approved sheet. Due to a redesign of the interchange, additional right of way will be needed in this area which will in turn require a further revision of the plan sheet.

Enclosure

NOTED
F. B. KLABOE

copy to
9-30-66

Young w/enc.
9-26-66

RECEIVED
SEP 28 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 8 - 1966
FOR FILING

Cover
Hwy
Bureau - Portland
Agreement

September 8, 1966

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage St., N.E.
Salem, Oregon

Dear Sir:

We are forwarding two copies of revised rights-of-way plans sheet No. 2 for the Fremont Bridge Section, Project No. I-405-8(4)303.

This revision reflects the cancellation of R/W file 37127, Station 343 80. The area previously shown as file 37127 now becomes parcel 6 of file 36087.

We request that one copy of the revised plans sheet be returned approved for our files if found to be satisfactory.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Office Engineer

CL:ed

AUG 11 1966

I 405-8(2) 304
7310
W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

NOTED
R. L. PORTER

2525 NO. LARRABEE AVENUE
PORTLAND, OREGON 97227

AUGUST 17, 1966

File Ref. D 9010 - 32 - 17

Routing

Morgan	Peace
Decker	Morelock
Bond	Trout
Barbee	Scott
Walker	Wills
Glenn	Litchfield
Swan	Olson

RECEIVED
AUG 22 1966
CONSTRUCTION DIVISION

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Attn: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Easement for Highway Structure,
R/W Files 36087 and 37127
East Fremont Interchange Section - Stadium Freeway
Multnomah County
Project No. I-405-8(4)303

Reference is made to your letter of June 20 concerning need to relocate and modify Railroad buildings and provide for future facilities in connection with the State's proposed construction of Fremont Bridge and E. Fremont Interchange in Portland under the above-named project.

In reviewing your letter it appears to us that the State has overstressed the matter of providing temporary safeguards during construction particularly since the installation of adequate shelters would, in itself, be hazardous to Railroad personnel and other people utilizing and working in the areas underneath and would interfere with operation of Railroad and its tenants, thus creating many problems in this respect. Furthermore, it is unthinkable that, during construction of the Bridge, the Railroad could carry on an operation underneath such as we have now in our Yardmen's Locker & Toilet Building where at times some 300 Trainmen use the facility in a day.

Copy # 7298

For these reasons and as pointed out to you in my May 3 letter, the proposal to either perform your steel erection on weekends or during other so-called nonworking periods or to provide temporary protection over our National Carloading Building is not acceptable and the building must

be relocated as indicated previously. Furthermore, do not feel that the State is providing for minimum interference when it proposes to attempt its pier construction within confines of the Carloading Building.

There are, in fact, many hazards other than those defined as structural which can and do occur long after construction is complete. For example, the possibility of accidents on overhead highway structures involving trucks carrying inflammable materials which could spill over the sides offers a real hazard to any buildings underneath or nearby and their occupants.

Although the Railroad has indicated it desires to retain the right to rebuild within the easement areas, we certainly do not anticipate rebuilding with any structures such as the wood frame buildings now occupying these areas.

While the bridge is being constructed the State, of course, can relieve itself of responsibility by requiring its Contractor to furnish so-called safeguards and insurance. On the other hand, the Railroad after construction would have to look to each individual case for responsibility where damage occurs to the railroad except from the overhead structure itself. Since the proposed Fremont Bridge structure will be double-decked and extremely high, carrying very fast vehicular traffic, likelihood of the Railroad being so involved in a number of instances is certainly not remote.

With respect to considering the Carloading Building as Railroad operating property, as you know, a similar situation was dealt with in connection with the E. Marquam Bridge Interchange construction over Portland Traction Company's property and accordingly we do not consider the Bureau of Public Roads' regulations referred to in your letter, applicable. This Railroad Company is very well familiar with the limitations which the Highway Department would impose from the E. Marquam Bridge Interchange negotiations and, consequently, as you know, an easement agreement has not been consummated incorporating those restrictions.

As a matter of information, removal of the Railroad's spur track to the Linde Air Products Co. is covered in our industry contract with Linde, which provides for removal of the track beyond clearance point by the Railroad who shall pay to the Industry salvage value for the usable material between the clearance point and Linde's property line less cost of removal. This takes in that portion of the track occupying the city streets. However, inasmuch as the State's construction renders the spur track completely useless and the Railroad would not be served by retaining any portion thereof, the State should pay for removal of the remainder.

You were informed in the opening paragraph of this letter that construction of the Fremont Bridge or installing protective shelters over the Railroad's Yardmen's Locker & Toilet Building is out of the question since our employees use the building on a 24-hour, 7-days-a-week basis. Accordingly, the State should make plans for relocation of this facility in line with previous correspondence and discussions.

After considering the foregoing, will you please advise the State's willingness to proceed along the lines discussed in my letters of October 5, 1964 and April 14, 1966.

Yours very truly,

W. J. Johnson

Copies to:

A.W. Parsons
R.L. Porter
F.B. Kraske
Tom Edwards

FOR INFORMATION ONLY — NO REPLY WILL BE MADE UNTIL MR DIFFENDERFER'S REPORT IS COMPLETE.

10-12-66

I

RECEIVED
OCT 13 1966
OFFICE OF
STATE HIGHWAY ENGINEER

FORM E-1252 (6M) DO

RECEIVED
JUN 23 1966
FOR FILING

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

Contr
Proj
Multi - Portland
E Fremont
Interch

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

June 22, 1966

NOTED
R. L PORTER

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

RE: Easement for Highway Structures
R/W Files 36087 and 37127
East Fremont Interchange Section
Stadium Freeway - Multnomah County
Project No. I-405-8(4)303
YOUR FILE: D 9010 - 32 - 17

Gentlemen:

This is in reply to your letter of May 3, 1966 in which you underscored the need to relocate all your existing buildings which will lie beneath our proposed East Fremont Interchange structures.

You point out that as a matter of safety you do not wish to have your employees or your tenants work in buildings under the highway structures during construction. I should like to point out that recently we have successfully completed erection of the steel girders for the East Marquam Interchange Structures over the Portland General Electric building. This is a double-deck structure similar to that which will be constructed over your property. In order to minimize the danger to either your or your tenants' employees, we can specify that this work will be done on weekends or during other non-work periods. We can also specify that the contractor will construct temporary protection over the roof of the National Carloading Building to eliminate potential damage from objects dropped from the structure during construction.

We must also arrange for the construction of the pier which will lie within the easterly wall of the National Carloading Warehouse. In order to construct this pier, we must isolate a portion of this building and must have available a portion of the existing parking area for a pile-driving rig. During the progress of this work it will be necessary for the railroad and the State to coordinate our mutual operations so that each party may carry on its operation with minimum interference with the other. We will include in the contract provisions for our contractor to restore the National Carloading Warehouse to its original condition after the pillar is constructed.

Although not affecting our offer, the discussion in your letter concerning the National Carloading Building indicates that this facility is non-operating property. Warehouses leased to others are not considered to be operating facilities by the Inter-

State Commerce Commission. Therefore, the provisions to restore railroad facilities as provided in PPM 30-3 would not apply in any event, and the disposition of this building would be handled as set forth in PPM 21-4.1 and 21-4.4, copies of which are attached, as any other right of way acquisition.

You also indicate that the presence of this structure would impose limitations inconsistent with the continued use of the structure of operations as now being conducted in the affected building. As requested in our letter of April 29, 1966, we will need a complete explanation of your proposed use of the area beneath the structure so that we may make a proper presentation to the Bureau of Public Roads.

In reviewing our negotiations with the Linde Air Products Company we find that the track occupying that property has been acquired by the State as part of the right of way negotiation. Therefore its removal will be handled under a demolition contract or included as a portion of the State's contract with the track materials being assigned to the successful bidder. The railroad will be reimbursed for the removal of that track conflicting with the footing construction. That portion of the track occupying the city streets should be removed at railroad expense, upon request of the City, as per Ordinance No. 56866.

The precautions we propose for the National Carloading Warehouse could be also applied to the Yardmen's locker and toilet building located on North Russell Street; that is, the roof would be protected by some temporary cover and the beams would be erected at such time as the building is either not occupied or when its occupancy is at an absolute minimum.

This information, coupled with that supplied to you with our letter of April 29, 1966, provides you with the State's view as to the terms contained in your letter of October 5, 1964. We urge that you give these thoughts serious consideration and provide us with an early reply so that we may proceed with our negotiations.

Very truly yours,

F. D. Morgan
Construction Engineer
ORIGINAL SIGNED BY
By T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm:fp

bc A. W. Parsons
R. L. Porter
F. B. Klaboe
Ivan Merchant
L. H. Young
D. H. Moehring
G. E. Rohde
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

RECEIVED
JUN 23 1966
OFFICE OF
STATE HIGHWAY ENGINEER

FORM E-123X BOM 4-62

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MCMINNVILLE
KENNETH N. FRIDLEY, MEMBER
SALEM
DAVID B. SIMPSON, MEMBER
PORTLAND

RECEIVED
MAY 4 - 1966
FOR FILING

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

NOTED
R. L. FRAZIER

I-405-8(22)304
7310

April 29, 1966

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: Easement for Highway Structure
R/W Files 36087 and 37127
East Fremont Interchange
Stadium Freeway
Multnomah County
YOUR FILE: D 9010 - 32 - 17

Gentlemen:

At our meeting of April 14, 1966, we discussed the terms contained in your letter of October 5, 1964 concerning this subject.

Condition (1) of your letter agreed to grant easements to the State to a line 25 feet outside the structure with certain reservations. Reservation (a) was that all railroad buildings are to be relocated outside the easement line at State's expense. Reservation (b) was that railroad will retain the right to build and occupy future buildings in the easement area in accordance with the State and local fire buildings codes, except that no building will be constructed closer to the bridge in an easement area above a plain parallel to and 8 feet below the underside of the structure.

As brought out in our meeting of April 14, we felt these requests somewhat inconsistent, but you pointed out that the type of buildings which would be reconstructed within the easement area would be of a type other than those which now occupy these areas. In order for us to make a proper presentation to the Bureau of Public Roads, we must have from you a complete explanation of your proposed use of the area beneath the structure so that it can be shown that your requests as outlined in your October 5 letter are justified.

It was also mentioned in our meeting of April 14 that you would like to see our appraisal of the damage to your property. We have had our appraisals reviewed for the air easement over your property. This appraisal includes the moving of the clubhouse, fire proofing the National Carloading and Yardmen's buildings, damages to the National Carloading Building caused by the construction of a column in its east wall, and the damages to the six parcels of land included in our Files 36087 and 37127. We are willing to recommend to the Highway

Commission that the sum of $55,885 be paid as consideration. If this is acceptable to you the disposition of the buildings will be the railroad's responsibility. In addition to the consideration above stated, the railroad will retain the right to use the area beneath the structure in any manner so long as it is consistent with our use of the property.

As agreed in our conference on April 14, the State will assist you in obtaining vacation of North Brendle, Knott and Russell Avenues and the alley lying midway between Larrabee and Brendle Avenues and extending from Knott to Russell Street.

Herewith for your use you will find four (4) prints of a portion of our right of way map 1A-16-22 which shows the right of way we intend to acquire across your property. You will also find enclosed the description of easement for our Files 36087 and 37127 for your use.

Please review the information contained herewith and our above-stated proposal for settlement and advise at your earliest convenience, since it is our desire to accelerate the negotiation for this property. It is our intention to open bids for this project in the middle of 1967.

Very truly yours,

F. D. Morgan
Construction Engineer

By

T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

cc: A. W. Parsons

R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

RECEIVED
MAY 3 1966
OFFICE OF
STATE HIGHWAY ENGINEER

I-405-8(22) E. Fremont Interch. Section 1969
304 of Stadium Freeway in Portland
#7310 (PRELIMINARY) [redacted]

C & A 2503
C & A 3112
K. K. 603

RECEIVED
SEP 30 1969
FOR FILING

E-405-8(22)304
7310

Prelem

HC
8-19-69

MISC. CONTRACTS AND AGREEMENTS No. 3812

August 21, 1969

City of Portland
City Hall
Portland, Oregon

Attention: Ray Smith
City Auditor

Gentlemen:

Attached for your records are two fully executed copies of an agreement covering the installation of luminaire units on the Fremont Bridge and East Fremont Interchange.

We have retained a fully executed copy of this agreement for the Commission's files.

Very truly yours,

Floyd Quary, Secretary
OREGON STATE HIGHWAY COMMISSION

flm
Attachment

cc F. E. Crandall
(conformed agreement attached)

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

August 5, 1969

Oregon State Highway Commission

AGENDA
AUG 19 1969
4c

Gentlemen:

An agreement has been executed with the City of Portland for the installation of luminaire units on the Fremont Bridge and the East Fremont Interchange in that city.

By the terms of the agreement, the State is to install the luminaire units and care for future maintenance. The City is to pay the power costs. The installation, estimated to cost $330,000, is incorporated in overall construction of the bridge and its approaches.

Your approval and authorization for the Secretary to sign this agreement is recommended.

This matter will be on the agenda for your consideration at the August 19 meeting.

Very truly yours,

Original signed
Forrest Cooper

Forrest Cooper
State Highway Engineer

cc: Floyd Query
R. L. Porter
Tom Edwards
V. D. Wolfe
V. E. Skoog
F. B. Crandall
E. S. Hunter
J. J. Gix
H. S. Cox
A. E. Johnson

(A)
3 COPIES TO BE SIGNED

1C in duplicate

by Secretary

note to Frank Taylor sig. Page after copy agreement & Part.

NOTED
FLOYD QUERY

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section EAST FREMONT INTERCHANGE Highway Stadium (I-405) County Multnomah Prefix 26-1973

Res. Engr. K. D. Limbocker Approx. Length _____ Miles. Sta. _____ to Sta. _____ Date 6-12-69

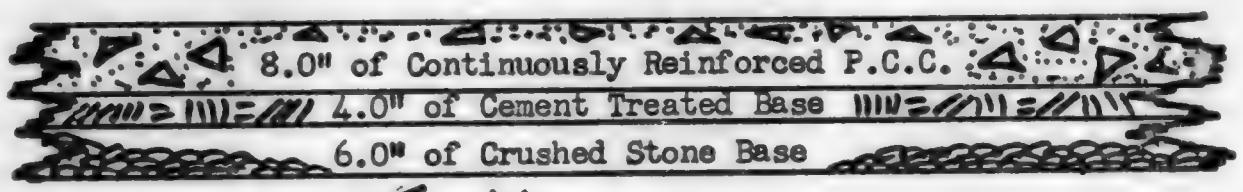
Mean

Truck A.D.T. 1540 Traffic Coefficient 11.5 18 kip s.a. per day 1363.6.

Annual Precipitation 40"± Frost Penetration - - - - -.

W N & N W LINES

(1)
Typical Soil
27 LL
7 PI
100 %P 10
86 %P200
0 %Gravel
2 %C Sand
12 %F Sand
69 %Silt
17 %Clay
5 "R" Value



AASHO CLASSIFICATION:
A-4 (8)

MATERIAL SOURCES:
To be determined by the Engineer.

See attached sheets for computations.

CBE Total Req.	Credit	Actual Thick.
18.0	7.2 10	8.0 C.R.P.C. 4.0 C.T.B. 6.0 C.S.B.

FORM 734-2001A (6-68)

NOTED
F. B. KLABOE

cc:

B.P.R.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Division Geologist

Submitted by _____ Recommended by _____
for Staff Assistant Asst. Engineer of Materials

Recommended by _____ Approved by _____
asst Construction Engineer Asst. State Highway Engineer

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section EAST FREMONT INTERCHANGE Highway Stadium (I-405) County Multnomah Prefix 26-1973

Res. Engr. K. D. Limbocker Approx. Length ____ Miles. Sta. ____ to Sta. ____ Date 6-12-69

Mean

Truck A.D.T. 532 Traffic Coefficient 9.8 18 kip s.a. per day 362.5.

Annual Precipitation 40"± Frost Penetration - - - -.

(1)

Typical Soil

27 LL
7 PI
100 %P 10
86 %P200
0 %Gravel
2 %C Sand
12 %F Sand
69 %Silt
17 %Clay
5 "R" Value

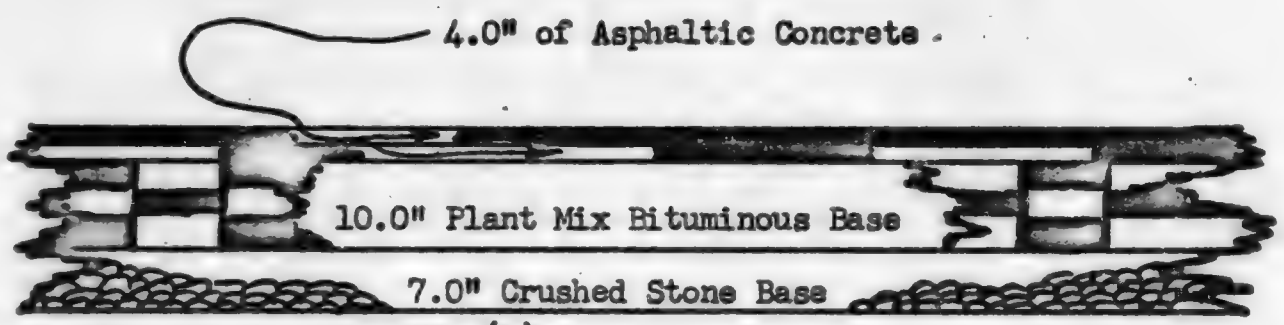
AASHO CLASSIFICATION:

A-4 (8)

MATERIAL SOURCES:

To be determined by the Engineer.

W E & E W LINES



	CBE Total Req.	Credit	Actual Thick.	
		8.0	4.0	A.C.
		18.0	10.0	P.M.B.B
		7.0	7.0	C.S.B.
	33.0	33.0	21.0	

See Pages 3 and 7 for remarks.

SECTION: EAST FREMONT INTERCHANGE

HIGHWAY: Stadium

COUNTY: Multnomah

"OTHER ROADS"

Traffic Coefficient	A.C. Wearing Surface	P.M.B.B. ~~or C.T.B.~~	3/4"-0 Level	Crushed Base	S.S. or L.T.S.	"CBE" Total Requirement	Actual Thickness
9.0 - 10.0	4.0"	8.0"	—	9.5"		32.0"	21.5"
8.0 - 9.0	4.0"	8.0"	—	6.0"		28.5"	18.0"
7.0 - 8.0	3.5"	6.0"	—	7.5"		25.5"	17.0"
6.0 - 7.0	3.0"	6.0"	—	5.0"		22.0"	14.0"
4.8 - 6.0	2.0"	4.0"	—	7.5"		18.5"	13.5"
Cars Only	2.0"	—	2.0"	7.5"		13.5"	11.5"

Remarks:

Where crushed material is required for base, level, or shoulders, recommend the 1.0"-0 material used for Plant Mix Bituminous Base or Cement Treated Base be substituted for normal specification sizes.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0"	Asphaltic Concrete	=	2.0" Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8" Crushed Base
1.0"	Cement Treated Base	=	1.8" Crushed Base
1.0"	Oil Mat	=	1.1" Crushed Base
1.0"	Stone Subbase (Per Standard Specifications plus Supplementals)	=	0.8" Crushed Base
1.0"	Lime Treated Subgrade	=	— " Crushed Base

Above factors apply to materials that comply with Standard Specifications, Supplemental Standard Specifications, and Special Provisions.

W N & N W LINES

SECTION E. FREMONT INTERCHANG HIGHWAY St um

COUNTY Multnomah DATE 6 - 12 - 69

Outside Lanes X Inside Lane

Load Safety Factor 1.3 "R" Value 5

Subbase Depth 6.0" C.T.B. Depth 4.0"

k-Values: Basement 65 Subbase 85 C.T.B. 177

Compressive Strength 3950 CR

Modulus of Rupture(M.R.) 525 Total Depth P.C.C. 8.0

Credits	
8.0" CRPCC	9.0
4.0" CTB	4.0
6.0" CB	6.0
—	—
—	—

Axle Load Kips	Axle Load x L.S.F. Kips	Stress P.S.I.	Stress Ratio Stress P.S.I. / M.R.	Allowable Repetitions No.	Estimated Repetitions No.	Fatigue Resistance Used %
SINGLE AXLE LOADS						
35	45.5	375	.75	490	43	9
34	44.2	370	.70	2,000	81	4
32	41.6	355	.68	3,500	81	2
30	39.0	340	.65	8,000	—	—
28	36.4	325	.62	18,000	—	—
26	33.8	310	.59	42,000	—	—
24	31.2	290	.55	130,000	1802	1
22	28.6	270	.51	400,000	8859	2
20	26.0	250				
18	23.4					
TANDEM AXLE LOADS						
50	65.0	355	.68	3,500	416	12
48	62.4	345	.66	6,000	416	7
46	59.8	330	.63	14,000	714	5
44	57.2	315	.60	32,000	1,141	4
42	54.6	305	.58	57,000	2,291	4
40	52.0	295	.56	100,000	2,682	3
38	49.4	280	.53	240,000	11,950	5
36	46.8	265	.50	- - - -	42,490	
34	44.2	250			146,233	
32	41.6				328,496	
30	39.0				174,636	
28	36.4				174,636	

Total % Fatigue Used 58

W N & N W LINES
SECTION EAST FREMONT INTERCHANGE HIGHWAY Stadium
COUNTY Multnomah DATE 6-12-69

Axle Load Kips	2 Axle TADT = 672		3 Axle TADT = 280		4 Axle TADT = 112		5 Axle TADT = 476		6 Axle TADT = ---		Total 20-Year Repetitions
	Const.	Rep.	Const.	Rep.	Const.	Rep.	Const.	Rep.	Const.	Rep.	
SINGLE AXLE											
35							0.09	43			43
34							0.17	81			81
32							0.17	81	—	——	81
30							—	——	14.3		—
28							—	——	14.3		—
26	—	——			—	——	—	——	28.7		—
24	1.75	1176	—	——	3.72	417	0.44	209	—	——	1802
22	5.91	3,972	3.10	868	9.20	1030	6.28	2989	27.4		8859
20	40.4	27,149	86.9	24,332	202	22,624	419	199,444	60.4		273,549
18	128	86,016	334	93,520	611	68,432	2060	980,560	349		1,228,528
TANDEM AXLE											
50			0.55	154			0.55	262			416
48			0.55	154			0.55	262			416
46			—	——			1.50	714			714
44			1.10	308			1.75	833			1141
42			1.72	482	—	——	3.80	1809			2291
40			1.72	482	5.66	634	3.29	1566	—	——	2682
38			0.62	174	9.09	1018	22.6	10,758	28.8		11,950
36			13.8	3,864	12.1	1355	78.3	37,271	61.4		42,490
34			62.7	17,556	35.4	3,965	262	124,712	62.9		146,233
32			136	38,080	145	16,240	576	274,176	272		328,496
30			61.7	17,276	164	18,368	292	138,992	462		174,636
28			61.7	17,276	164	18,368	292	138,992	462		174,636
26			61.7	17,276	164	18,368	292	138,992	462		174,636

TRAFFIC ANALYSIS

SECTION: W N & N W LINES E. FREMONT INTER.

HIGHWAY: Stadium

COUNTY: Multnomah

16,000 Present ADT (1970)

7.0 Percent Trucks

AXLES	ONE TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	480	1.8	864	672	900 X 2000	604,800
3	200	1.8	360	280	X 2500	560,000
4	80	1.8	144	112	X 6360	280,000
5	340	1.8	612	476	X 5140	3,027,360
6	—	—	—	—	X	- - - - -
				1540	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 4,472,160

TWENTY YEAR EWL 89,443,200

TRAFFIC COEFFICIENT 11.5

TRAFFIC ANALYSIS

SECTION: EAST FREMONT INTERCHANGE

HIGHWAY: Stadium

COUNTY: Multnomah

9500 Present ADT (1970) (Each Line)

4 Percent Trucks

AXLES	ONE WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	200	1.8	360	280	900	252,000
3	90	1.8	162	126	2000	252,000
4	20	1.8	36	28	2500	70,000
5	70	1.8	126	98	6360	623,280
6	—	—	—	—	5140	—
				532	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 1,197,280

TWENTY YEAR EWL 23,945,600

TRAFFIC COEFFICIENT 9.8

These Ramps (Legs) will connect with Cook & Ivy Streets. (City Couplet). Traffic used assumes a Freeway will not be built--for at least 20 years.

SECTION: EAST FREMONT INTERCHANGE

HIGHWAY: Stadium

COUNTY: Multnomah

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A.C. or P.C.C.
7. Stage Construction: Not applicable
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: Not applicable
13. Traffic Safety: Not a problem
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made as this is a short section (1600'±). Both types of surfacing have been recommended due to traffic and the possibility of replacing the W E & E W Lines at some future date.

RECEIVED
JUN 10 1969

FOR FILE
I 405-8(22)504
7310
RLP

June 9, 1969

City of Portland
Bureau of Fire
55 S. W. Ash Street
Portland, Oregon 97204

Attention: James E. Riopelle, Chief

Gentlemen:

Your letter of May 13 to A. E. Johnson, Metropolitan Engineer, regarding equipment to provide a supply of water to elevated bridge structures has been received in this office.

A study is now being made to see how best to provide the dry standpipes requested. Because of the type of construction involved in the east and west Fremont approaches, the installation of standpipes is not the easiest installation. At such time as our plans are finalized, we will ask that you review the proposed locations and installations.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
I. D. Merchant
A. E. Johnson

IDM:jf sr

FORM S-90 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
May 20, 1969

SUBJECT: Fremont Bridge
Fire Protection

To: Mr. Tom Edwards
Ass't. State Highway Engineer
State Highway Building
Salem

RECEIVED
OREGON STATE HIGHWAY DEPT.
BRIDGE DIVISION
AM MAY 22 1969 PM
7,8,9,10,11,12,1,2,3,4,5,6

Attached you will find a copy of a letter dated May 15, 1969 from the Chief, Bureau of Fire, City of Portland requesting that additional dry stand pipes for fire protection be installed on both interchanges of the Fremont Bridge. Our plans call for dry stand pipes to be installed on Piers 1W and 1E of the bridge, similar to those which were installed on the Marquam Bridge. These two piers, incidently, are referred to in the attached letter as the "West Side 'V' Pier and the East Side 'V' Pier".

This request is forwarded for your consideration.

A. E. Johnson
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

To Ivan - Analyze, put in piper as necessary - Ed to Riopelle

ELH:pb

Enc

cc: Ivan D. Merchant w/attach.

RECEIVED
MAY 21 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUREAU OF FIRE

Department of Public Safety

CITY OF PORTLAND, OREGON

Stanley W. Earl
COMMISSIONER

James H. Riopelle
CHIEF
55 S. W. Ash St., 97204
Phone 226-6141
Ext. 481

May 15, 1969

RECEIVED
OREGON STATE HIGHWAY DEPT.
BRIDGE DIVISION
AM MAY 23 1969 PM
7,8,9,10,11,12,1,2,3,4,5,6

Mr. A. E. Johnson, Metropolitan Engineer
Oregon State Highway Department
5821 N. E. Glisan Street
Portland, Oregon 97213

Dear Mr. Johnson:

FIRE DEPARTMENT STANDPIPES ON ELEVATED ROAD AND BRIDGE STRUCTURES

A firefighting water supply is essential to the suppression of fire including over the road accidents involving substantial quantities of flammable liquids. Normally, if a fire ladder truck and fire pumper can reach the base of a structure, water can be delivered to the structure above, up to and including the 70 foot elevation.

A system of wet mains and hydrants on elevated structures is impractical because of freezing in this climate. A system of dry standpipes which the fire department can charge when the need arises appears to be the most practical solution to this problem. All of the necessary fittings, gates, and related appliances are standard in the trade.

Dry standpipes have been successfully erected on the Marquam Bridge to help protect these high roadways. It is our recommendation and request that a similar system of standpipes be installed on the proposed Fremont Bridge and its approaches. We would recommend the following guidelines or criteria for such standpipe installations:

1. Provide dry standpipe service to roadway structures more than 70 feet above ground level.

2. For single deck or single level roadways, provide a 4-inch standpipe with a 2-way, 2 1/2-inch, siamese inlet located not less than 2 feet or more than 4 feet above the ground, and two 2 1/2-inch gated outlets at the road level, accessible for firemen's use.

3. On multi-level elevated road structures, the standpipes should be 6 inches in diameter with a 3-way, 2 1/2-inch fire department siamese connection located not less than 2 feet or more than 4 feet above ground level with two 2 1/2-inch gated outlets accessible to firemen at each level. In such multi-level structures, the standpipe may be reduced in size to 4 inches to serve the topmost level.

METROPOLITAN ENGINEER
RECEIVED
MAY 16 1969
ME AAE AME MGE MDE MTE

4. On multi-level structures, standpipes should be located where they can service two or more levels of roadway.

5. The interval between vertical standpipes on elevated structures should be not more than 1,200 feet.

6. If practical, horizontal feeders should be tapped into the vertical standpipe to serve adjacent roadways.

7. Standpipes should be corrosion resistant, and we would recommend that they be fabricated of galvanized iron pipe.

8. All fire department connections should be equipped with American National Standard fire hose threads.

9. All valves should be gate valves (not globe type) to assure a straight efficient waterway.

A preliminary survey and review of the proposed structures on the west side indicates that standpipes should be provided at:

1. The west side "V" pier;

2. 15th and N. W. Savier;

3. 18th and N. W. Savier;

4. 15th and N. W. Overton.

A preliminary survey and review of the proposed structures on the east side indicates that standpipes should be provided at:

1. The east side "V" pier;

2. N. Larrabee and Knott Street;

3. N. Mississippi and Stanton Streets.

We shall be pleased to review these suggested standpipe locations with your highway engineers. Our suggested locations may not be practical for reasons not known to us.

May I offer another fire protection observation for your consideration and information? Highway accidents with flammable liquids carriers generally result in flammable liquids spills involving from 3,000 to 6,000 gallons of fuel. As likely as not, they result in fires. The spilled liquids usually follow grade into the gutters.

Any downspouts from the leads or the gutters may be expected to conduct flammable liquids to grade. If these conductors discharge onto or in the vicinity of combustible structures, you may expect an extension of the fire from the roadway above. Such gutters, drain pipes, etc., should never discharge on or immediately under unprotected steel structural members of the bridge or roadway.

Very truly yours,

James H. Riopelle

JAMES H. RIOPELLE
Chief, Bureau of Fire

JHR/mjp

cc: Commissioner Stanley W. Earl
Donald Bergstrom

RECEIVED
APR 30 1969

SP*23687-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon 97310
April 28, 1969

I-405-8(22)3C4/
7310

To: MEMO TO FILE

SUBJECT: "EXIT" Signs
East Fremont Interchange
Portland

This letter is to document for the file the fact that the writer and Ivan Merchant discussed the size of the "EXIT" signs on the East Fremont Interchange design. The consultant was on the other end of the telephone line during our conversation. The consultant advised that there would be restricted horizontal clearance at certain gore points if the regular 5'x6' "EXIT" sign was utilized.

Mr. Merchant was advised, and he in turn relayed to the consultant that reduced size sign boards using the same letter size should be used. Board sizes at this location will be 4'x5'.

L. E. George
Assistant Traffic Engineer

LEG:mk

cc: Tom Edwards
I. D. Merchant

NOTED
TOM EDWARDS

RECEIVED
APR 29 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 21 1969

FORM FHWA-127A (2-68)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

I-405-8(22)304
7310

DATE: April 16, 1969

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

In reply refer to: 08-35-EC/400.1

copy 'no hearing' file

FROM : For R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8( )304
East Fremont Interchange Section, Stadium Freeway Highway
Multnomah County
Public Hearing Status

We concur that additional hearings are not required for the subject project. The determination is based on the information included in your April 8, 1969 letter.

Since we have approved the interchange layout and design and preliminary structural design we believe design approval has already been given although on a piecemeal basis.

4-21-69

NOTED
E. R. KABBE

RECEIVED
By Asst. State Hwy. Engr.

RECEIVED
APR 17 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
APR 18 1969
FOR OREGON STATE
HIGHWAY DEPARTMENT

I-405-1(22)304
7310

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

April 16, 1969

The Honorable William A. Bowes
Commissioner of Public Works
City of Portland
1220 S. W. 5th Avenue
Portland, Oregon 97204

RECEIVED
APR 16 1969
ENGINEER
COUNTY & CITY DIVISION

Dear Commissioner Bowes:

Re: East Fremont Interchange, Stadium Freeway
City of Portland, Multnomah County

We have been advised by the Bureau of Public Roads that construction of the four ramps connecting the east side of the East Fremont Interchange to Interstate 5 north and south will be deferred until such time as the Northeast Freeway is constructed. The ramps from the Fremont Bridge to Interstate 5 north and south will be constructed as will the through roadway from the Fremont Bridge to the city street connections at Commercial Avenue and Ivy Street. The rights-of-way will be purchased for the deferred ramps but the ramps will not be constructed until a commitment can be made on the construction of the freeway on to the east.

There are no detailed plans for such a facility to the east; however, it appears that the closest interchange or connection to local streets would probably be to Union Avenue. The temporary connections to the local streets at Commercial Avenue and Ivy Street would be eliminated at that time.

No commitment can be made at this time on interim use of the apparently excess property which will be acquired for the deferred ramps since some of this may be needed by the contractor during construction. If there are particular areas which your people may desire to utilize during construction at a later date, these will be investigated on an individual basis.

NOTED
F. B. KLABOE

Very truly yours,

Forrest Cooper
State Highway Engineer

By ORIGINAL SIGNED BY
E. B. KLABOE

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
D. J. Barbee
H. S. Cox
A. E. Johnson

Note: Mr. Cox: Do we need a supplemental agreement?

FBK

NO
Fred
No!
letter accepted as written

NOTED
DON HARWELL

RECEIVED
APR 16 1969

FOR FILING
Comet
Story
Munn - Reed
E. Fremont Ln.

April 16, 1969

The Honorable William A. Bowes
Commissioner of Public Works
City of Portland
1220 S. W. 5th Avenue
Portland, Oregon 97204

Dear Commissioner Bowes:

Re: East Fremont Interchange, Stadium Freeway
City of Portland, Multnomah County

We have been advised by the Bureau of Public Roads that construction of the four ramps connecting the east side of the East Fremont Interchange to Interstate 5 north and south will be deferred until such time as the Northeast Freeway is constructed. The ramps from the Fremont Bridge to Interstate 5 north and south will be constructed as will the through roadway from the Fremont Bridge to the city street connections at Commercial Avenue and Ivy Street. The rights-of-way will be purchased for the deferred ramps but the ramps will not be constructed until a commitment can be made on the construction of the freeway on to the east.

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No commitment can be made at this time on interim use of the apparently excess property which will be acquired for the deferred ramps since some of this may be needed by the contractor during construction. If there are particular areas which your people may desire to utilize during construction at a later date, these will be investigated on an individual basis.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
D. J. Barbee
H. S. Cox
A. E. Johnson

Note: Mr. Cox: Do we need a supplemental agreement? FBK

ADO:jp srb

RECEIVED
APR 16 1969

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

I-405-8(22)304
7310

Klahoe

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: April 11, 1969

In reply refer to: 08-35-DA

FROM : R. E. Simpson, Division Enginer
Salem, Oregon

SUBJECT: Oregon Project I-405-8( )304
East Fremont Interchange Section

Reference is made to Mr. Young's letter of April 9, 1969 requesting approval of a specification to allow restriction of the contractor's operations on properties under the "Operation Green Fingers" on this project.

We also feel the public interest will be served by allowing the agricultural plots to attain their maximum yield and will concur in your request.

4-16-69

Young
By Asst. State Hwy. Engr.

E. R. KLAMOE

RECEIVED
APR 15 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
APR 9 - 1969
FO
Const
Prog
Maint - Ops
E Fremont Int

April 9, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon

East Fremont Interchange Section
Sunset Freeway Highway
Multnomah County
Project No. I-405-4( )204

Dear Sir:

We hereby request that the requirements of subparagraph 7c of PPM 21-2 relative to the contractor's working restrictions, immediate occupancy and use at the anticipated award date, be waived as being in the public interest for the subject project. We expect to open bids for this project on August 21, 1969, according to the Oregon State Highway Schedule of Contract Lettings, issue of February 28, 1969.

The properties in question lie within the right-of-way between Station 311+50 and Station 321+75, being composed of parts of Block 7, 10, 12, and 13 and all of Block 11. We have legal possession of the properties but are permitting "Operation Green Fingers", a self-help vegetable gardening project in the Albina District of Portland, use of this right-of-way. The land is divided into separate plots and allotted to poor families in the area, both black and white. They have been granted a land use permit which will terminate September 30, 1969. The contract specifications will restrict the contractor's operations on the properties, as required in paragraph 6c of PPM 21-6.3.

Because the area in question is at the easterly end of the project and clear of the proposed structures, we feel that the contractor will have ample opportunity to work in areas outside this portion of right-of-way for the short period of time involved; therefore, the restriction will not delay the contractor's operation or increase the project cost.

Attached are two copies of a sketch map showing, outlined in red, the areas involved. If further information is needed, please advise.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

L. H. Young
Program and Planning Engineer

Attachments

cc: R. W. Hilton
C. W. Swenson
J. E. Cobbs
R. H. Chase

JG:la

DISCARDED
FEB 21 1969
FOR

I-405-8(22)304
7310
PM

February 20, 1969

Mr. Glenn L. Jackson, Chairman
Oregon State Highway Commission
c/o Pacific Power and Light Company
Public Service Building
Portland, Oregon 97204

Dear Mr. Jackson:

Reference is made to Mr. John C. Beatty's letter to Mr. Herbert Schaab which you forwarded to Mr. Cooper.

I find that I probably gave you the wrong impression yesterday on the phone but submit the attached sketch for your information. You will note that the East Fremont Interchange will not contain any on or off ramps or legs northerly but will have a means for Fremont Bridge traffic to reach the city street system in the Boise School area. By small red dashes, we have indicated those city streets that will be closed. It is conceivable that this will have some effect on traffic circulation in the Boise School area; however, it does not appear that it will be so severe as to warrant acquisition of the school property.

The Highway Commission has largely stayed away from the establishment of urban parks as part of the state system, and in line with this theory, it does not seem that consideration should be given to acquiring the Boise School for this purpose.

If you need anything further, please let me know.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms
Att.

cc Forrest Cooper
F. B. Klaboe
Victor D. Wolfe
D. J. Barbee
A. E. Johnson

OVERLOOK PARK
J
O p s o n
D L C
Albina
I L L A M E T T E
R I V E R
Guild
L C
PACIFIC
UNION PACIFIC
ALBINA DOCK
ALBINA DOCK
EASTERN DOCK
BLOCK
MUNICIPAL TERMINAL NO 1
COLUMBIA BASIN TERMINALS WHARF
CROWN MILLS WHARF
MERSEY DOCK
DRYING DOCK
POLE
N THOMPSON
N WHEELER
BM 104 32
2 27 3

Copy

VERNE DUSENBERY
JEROME S. BISCHOFF
WILLIAM C. MARTIN
JOHN C. BEATTY, JR.
DAVID TEMPLETON
RICHARD L. BIGGS
ROBERT M. CHRIST
LLOYD S. ERICSSON
FREDERICK T. SMITH
KEVIN P. O'CONNELL

DUSENBERY, MARTIN, BEATTY, BISCHOFF & TEMPLETON
ATTORNEYS AT LAW
1107 STANDARD PLAZA
PORTLAND, OREGON 97204
TELEPHONE 224-3113

OUR CABLE ADDRESS
"DUSLAW"
PORTLAND, OREGON

Dorthy - Lets discuss

October 29, 1968

Mr. Herbert Schwab
Attorney at Law
1400 Public Service Bldg.
Portland, Oregon 97204

Re: Boise School

Dear Herb:

In accordance with our telephone conversation of last week I enclose herewith a section of map showing the approximate location of the highway ramps leading to the Fremont Bridge and their proximity to the Boise School.

As you know it is highly desireable that we phase out Boise School. The facility itself is a substantial building, but antiquated for school uses. We would like to construct another school in a totally different surrounding.

In addition, the location of these ramps and the traffic patterns indicated will make the Boise area very difficult for us to handle. I anticipate that its operation will be affected as adversely as was the Eliot plant. Eliot, of course, is a new facility and we are solving the problem by bringing the children in from all over the city of Portland. Because Eliot is new and up to date it is possible to do this. However, with Boise it would be impossible.

The thought has occurred to me that the State Highway Commission has created a series of very splendid parks in many parts of the state. Would it not be appropriate for the State Highway Commission, which has in effect precluded a good deal of park construction in Portland along the river, to help to establish an urban park? If the buildings, or any part of them, are not wrecked perhaps they could be rebuilt and operated by the city for community programs.

I thought that I might express these thoughts to you to perhaps discuss with Glen Jackson before we suggest that our staff approach the State Highway Commission. This sort of a proposal is sufficiently out of the ordinary so that the staffs, both ours and theirs, might well start with the assumption that such things are impossible.

Best regards,

John C. Beatty, Jr.

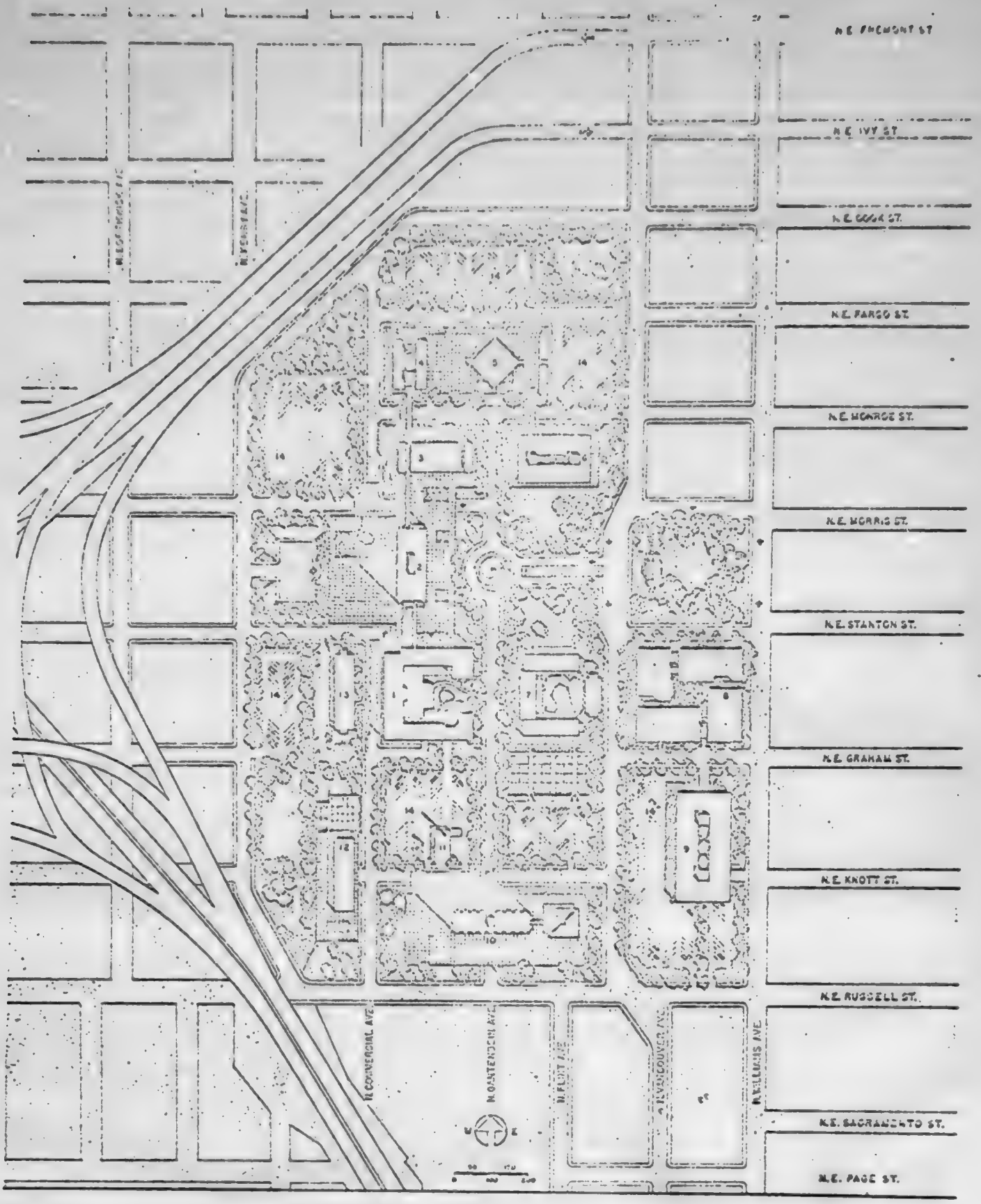
JCB:mll

enclosure

RECEIVED
FEB 14 1969
OFFICE OF
STATE HIGHWAY ENGINEER

FREEWAY
Couch DLC
FREMONT BRIDGE
INTERSTATE
FREEWAY
FREEWAY
BANFIELD FREEWAY
W Irving DLC
Irvington
Albina
Overlook
Guild DLC

Albina
Emanuel Hospital Development

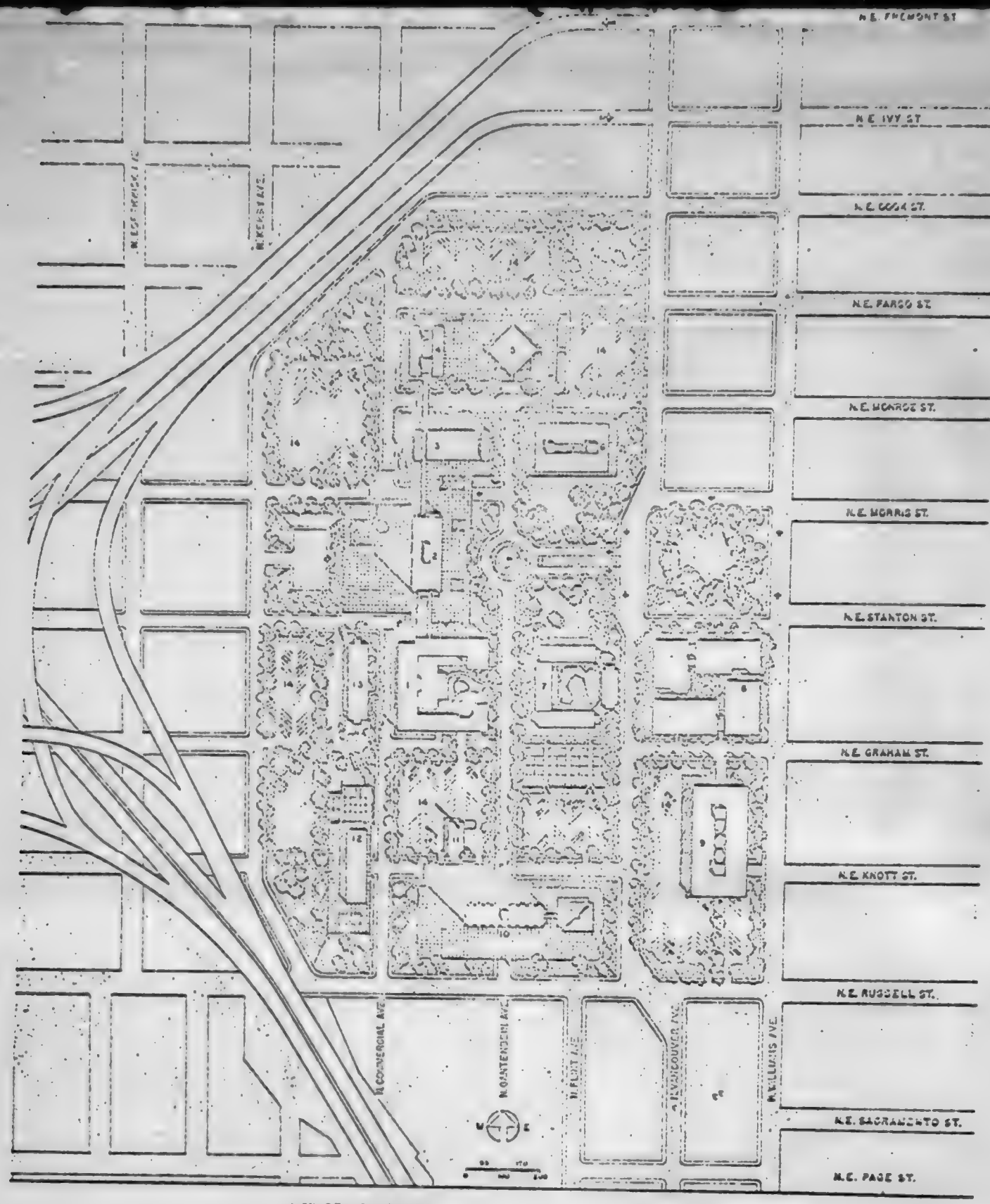


PROPOSED MASTER PLAN FOR EMANUEL HOSPITAL

NEWBERRY & SCHUETTE · ARCHITECTS · PORTLAND, OREGON · DEC '66

228-6407

Hospital is actively looking up property for expansion. 9-6-67



1. EXISTING HOSPITAL
2. NEW HOSPITAL ADDITION
3. NURSING HOME
4. MOTEL
5. AUDITORIUM
6. CLINIC
7. NURSE'S HOME
8. CLINIC
9. CLINIC
10. SENIOR CITIZENS
11. BOILER
12. EMPLOYEES' APARTMENTS
13. INTERNS' APARTMENTS
14. PARKING

PROPOSED MASTER PLAN FOR EMANUEL HOSPITAL

NEWBERRY & SCHUETTE · ARCHITECTS · PORTLAND, OREGON · DEC. '66

228-6407

Hospital master plan up
property for planning 9-6-67
[illegible] with

RECEIVED
JAN 22 1969

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20591

OFFICE OF THE ADMINISTRATOR

I-405-8(22)304
1310
DH

January 22, 1969

Mr. Glenn L. Jackson, Chairman
State Highway Department
State Highway Building
Room 138
Salem, Oregon 97310

See Page 4

THROUGH:
Mr. R. M. Phillips
Regional FHWA
Portland, Oregon

Dear Mr. Jackson:

We approve, effective this date, the following revisions of Interstate Routes 80N and 205 as requested in your letter of October 11, 1968:

80N. From a junction with Interstate Route 5 at the east end of the Marquam Bridge in Portland easterly via the Mt. Hood Freeway to the vicinity of 96th Street, thence northerly to the Banfield Expressway, thence easterly via Pendleton to the Oregon-Idaho State line southeast of Ontario.

205. From a junction with Interstate Route 5 south of Portland easterly and northerly to a point on Interstate Route 80N at the Mt. Hood Freeway in east Portland, and from another point on Interstate Route 80N at the Banfield Expressway northerly to the Oregon-Washington State line east of Vancouver.

Sincerely,

John R. Jamieson, Deputy
Federal Highway Administrator

1-28-69

NOTED
R. L. PORTER

RECEIVED
JAN 28 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Thaddeus Jones, Member
Portland

October 11, 1963

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage St. N. E.
Salem, Oregon

Subject: Application for Additional
Interstate Mileage,
Federal-Aid Act of 1963

Dear Sir:

We are submitting this letter to amplify our previous requests for exchange of Interstate mileage and additional Interstate mileage, in accordance with Public Law 88-283 of January 2, 1963, the Federal-Aid Highway Act of 1963, and IM 10-8-63.

We request the following priorities be established for system action and construction for these Interstate sections:

1. First Priority:

Elimination from the existing routing of I-30N that portion beginning at the intersection of I-5 on the east bank of the Willamette River in Portland and terminating at the intersection of I-30N with I-205 near 96th Street in east Portland (known as the Banfield Expressway) and substituting therefor a new routing beginning at an intersection with I-5 at the easterly end of the Marquam Bridge, thence easterly to an intersection with I-205 near 96th Street in east Portland (known as the Mt. Hood Freeway) and thence northerly concurrent with I-205 to a junction with I-30N.

The proposed deletion is 5.79 miles, and the requested addition is 5.27 miles. The concurrent mileage with I-205 is 2.56 miles.

This revision is within Oregon's current allotted Interstate mileage, and the construction of the revised routing is within the present Interstate apportionment.

1. First Priority - continued

For additional information, refer to our original request of July 25, 1963.

2. Second Priority:

Extension of I-305 (Salem) from Fine Street westerly across the Willamette River to a junction with FAP 47 at the west end of the Marion and Center Street Bridges. This proposed extension will require an allocation of an additional 2.34 miles to the Oregon Interstate Highway System.

The estimated cost of the proposed extension is $21,400,000. The work consists of four 12-foot lanes, one bridge over the Willamette River, and two interchanges.

Projected 1983 traffic - 14,800 ADT; estimated total vehicle miles - 12,641,000 per year; estimated lane miles - 9.36.

The proposed extension of I-305 will increase the service to the rapidly expanding developments on the west side of the Willamette River in Salem and adjacent areas, such as Salemtowne and other urban developments, and will substantially relieve the traffic burden on the existing street system and on Marion and Center Street Bridges by the diversion of traffic which does not desire to traverse that portion of Salem on the east side of the Willamette River.

The proposed extension will also provide a connection to Oregon Routes 22 (FAP 47) and 221 (FAS 116), which connection will be of increasing benefit to traffic having origin or destination to the west of Salem proper. Oregon Route 22 is one of the direct and major routes to the Pacific Ocean beaches and to recreational areas of the Pacific Coast Mountain Range. Oregon Route 221 penetrates the agricultural area north of Salem on the west side of the Willamette.

The proposed extension will improve the efficiency and service of the Interstate system by providing adequate connections with existing approach routes to Salem and by providing a route which avoids the business center to serve traffic bound to or from points other than

2. Urban Mobility - Continued

the center of the city, and thus qualifies under the intent of the Federal-Aid Highway Act of 1962 and IM 20-3-63, which read in part as follows:

"Interstate System Adjustments

"(b) Subsection (d) of section 103 of title 23, United States Code, is amended by adding at the end thereof the following new paragraph:

"(3) In addition to the mileage authorized by paragraphs (1) and (2) of this subsection, there is hereby authorized additional mileage of not to exceed 1,500 miles for the designation of routes in the same manner as set forth in paragraph (4), in order to improve the efficiency and service of the Interstate System to better accomplish the purposes of that System."

IM 20-3-63 Enclosure C, page 3

"Criteria for Selection of Interstate System Routes

"1. Connecting Principal Metropolitan Areas. - For the service of Interstate System traffic and other traffic bound in and out of the city to and from outside points, the routes selected should provide for convenient collection and delivery. Although the Interstate routes must have a proper relation in location and importance to other parts of the transit system, they will be the routes of principal service to the Interstate System traffic.

"4. Circumferential and Distributing Routes. - Routes which avoid the built-up centers of cities are needed to serve traffic bound in or from points other than the center of the city. Such routes may be so located as to serve both as arterials for through traffic around the city between various approach highways and as distributing routes for the movement of traffic with local origin and destination to and from the various portions of the city. The pattern of such routes depends upon the topography and plan of each particular city. In many of the relatively large cities the need is for routes completely encircling the city. In some of the larger cities a beltway near the edge of built-up areas may be needed in addition to an outer circumferential route."

2. Second Priority - continued

For additional information, refer to our original request of August 2, 1963.

Proposed Interstate funding for the construction of the proposed extension is set forth hereinafter.

3. Third Priority:

a. Extension of I-30N beginning with the junction with I-405 on the west bank of the Willamette River (Portland) westerly to a junction with US 101 in the Clatsop Plains west of Astoria near Camp Rilea. The proposed extension is 102± miles.

In addition to the information and data furnished under our original request of July 26, 1963, the proposed extension consists of four 12-foot lanes and 23 interchanges. Estimated lane miles - 408±; estimated vehicle miles - 353,635,000.

The estimated cost of the construction is $225,000,000.

The proposed route extension generally follows the existing Lower Columbia River Highway, US 30, providing the only Interstate service to a port facility, Port of Astoria, on the Pacific Ocean between Seattle and Astoria and San Francisco; and the route would have great defense significance in case river travel or the single railroad facility are affected.

The proposed extension will connect with US 101, which is a major north-south traffic artery in the State of Oregon and thus unifies and improves the operation of the east-west Interstate system with the State Highway system for traffic having origin or destination along the northern coast of Oregon.

The area through which the highway will pass, as proposed, is the fastest growing industrial area in the state. Illustrative of this growth is the Crown Zellerbach paper processing plant at Wauna, Oregon (12 miles west of Clatskanie) which has a $9 million addition planned for early construction. Underway or planned is

3. Third Priority - continued

the Northwest Aluminum Company $142 million plant at Warrenton, Oregon; an atomic reactor $100 million electric generating plant at Prescott (5 miles east of Rainier); and a large industrial development at Port of St. Helens (6 miles northeast of Clatskanie).

b. This proposed Interstate extension of I-80N includes the "Industrial Freeway", requested as an extension of I-405 under our letter of June 19, 1963, which we now desire to make part of the I-80N extension.

It is our present desire to construct the "Industrial Freeway Section" of the proposed I-80N extension, deferring the construction of the balance of the route until additional Interstate funds become available. The funding required for the "Industrial Freeway" is set forth hereinafter.

The "Industrial Freeway" begins at the junction with I-405 in Portland on the west bank of the Willamette River westerly to a junction with US 30 (St. Helens Road). The length of the section is 1.1 miles, at an estimated cost of $11,000,000. The facility will consist of eight 12-foot lanes for 0.1 mile and four 12-foot lanes for 1.0 mile, with two interchanges. The estimated lane miles are 4.8 miles; the 1990 traffic projections are 74,000 ADT and 24,000 ADT for the 0.1 mile and 1.0 mile sections, respectively; the estimated total yearly vehicle miles are 11,000,000.

The "Industrial Freeway Section" would penetrate the industrial heart of the city and will provide an increasingly important access to the rapidly expanding industrial area adjacent to the south bank of the Willamette River. Industries served are petroleum storage, manufacturing, docking facilities, etc.

4. Fourth Priority:

Extension of I-105 from a junction on the north side of the Willamette River with existing I-105 route thence southwesterly across the river to junction with existing I-105 thence westerly

4. Fourth Priority - continued

to intersection with FAP 25 and the proposed Belt Line Freeway. The proposed extension is 4.18 miles, with an estimated cost of $20,400,000 for construction.

The construction consists of four 12-foot lanes, one twin river crossing structure and five interchanges. The 1985 traffic projections are 36,000 ADT (average easterly 2.52 miles) and 12,300 ADT (average westerly 1.66 miles); the estimated lane miles are 16.7; and the estimated total yearly vehicle miles are 40,000,000.

This proposed extension of I-135, as explained in original request of June 12, 1963, greatly reduces the traffic problems at the present 6th and 7th Street terminus, as 55% of the Interstate traffic had an origin or destination westerly of the terminus and thus the extension greatly benefits such traffic.

We desire the additional mileage be approved for this extension but actual construction of the section be deferred until additional Interstate funds become available under subsequent Federal-aid highway acts.

In order to accomplish the construction of the I-305 extension (second priority) and the "Industrial Freeway Section" of the I-80N extension (third priority) at this time, in view of the fact the Federal-Aid Highway Act of 1963 did not appropriate Interstate funds for construction of the additional 1000 miles to be added to the Interstate system, we hereby request deferral of the construction of Interstate Route I-32 (approximately 14.8 miles), and the four ramps "EN", "NE", "SE" and "ES" of I-405, East Fremont Interchange (deferral of the ramps recommended by Mr. Simpson's letter of August 26, 1963); and, further, that the funds which are included in present Interstate appropriation be used to construct the 2.34-mile extension of I-305 and the 1.1-mile section of the 102± extension of I-80N.

The estimated cost of the deferred I-82 route and the estimated cost of the additional Interstate mileage are as follows:

Deferred Construction

I-82	(Preliminary Engineering	$ 766,000
	(Right of Way	1,140,000
	(Construction	28,320,000
I-405	Ramps	$ 2,438,000
		$32,766,000

Requested Construction

I-305	2.34-mile extension	$21,400,000
I-90N	1.1-mile extension (Industrial Freeway Sec.)	11,000,000
		$32,400,000

We trust this information, combined with that provided in our initial request for system action and additional Interstate system mileage, will permit approval of same, as well as the authorization to proceed with the construction of the I-305 extension and the 'Industrial Freeway Section of I-90N extension.

Very truly yours,

Forrest Cooper
State Highway Engineer

Attachments (6 copies)

cc R. L. Porter
F. B. Klaboe
F. D. Morgan
F. B. Crandall
L. H. Young

LHY:ia

RECEIVED
JAN 9 1969

I-405-8(22)304

7310

Rte

January 6, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon

Application for Additional Interstate Mileage, Federal Aid Act of 1968

Dear Sir:

We are submitting for your reconsideration and approval, in accordance with Section 14 of the Federal Aid Highway Act of 1968 and PM 10-8-68, a map showing a proposed extension of I-305 (Salem) from Pine Street westerly across the Willamette River to a junction with FAP 47 at the west end of the Marion and Center Street Bridges. This proposed extension will require an allocation of an additional 2.34 miles to the Oregon Interstate Highway System.

This request has been previously submitted under our letters of August 2, 1968 and October 11, 1968, same subject. The following data is taken from our original submissions and has been further amplified.

1. The estimated cost of the proposed extension is $21,400,000. The work consists of four 12-foot lanes, one bridge over the Willamette River, and two interchanges.

2. The projected 1990 traffic - 17,800 ADT; estimated total vehicle miles - 15,288,800 per year; estimated lane miles - 9.36.

3. The proposed extension of I-305 will increase the service to the rapidly expanding developments on the west side of the Willamette River in Salem and adjacent areas, such as Salemtowne and other urban developments, and will substantially relieve the traffic burden on the existing street system and on Marion and Center Street Bridges by the diversion of traffic which does not desire to traverse that portion of Salem on the east side of the Willamette River.

4. The proposed extension will also provide a connection to Oregon Routes 22 (FAP 47) and 221 (FAS 116), which connection will be of increasing benefit to traffic having origin or destination to the west of Salem proper. Oregon Route 22 is one of the direct and major routes to the Pacific Ocean beaches and to recreational areas of the Pacific Coast Mountain Range. Oregon Route 221 penetrates the agricultural area north of Salem on the west side of the Willamette.

5. The proposed extension will improve the efficiency and service of the Interstate system by providing adequate connections with existing approach routes to Salem and by providing a route which avoids the business center to serve traffic bound to or from points other than the center of the city, and thus qualifies under the intent of the Federal Aid Highway Act of 1968 and IM 10-8-68, which read in part as follows:

"Interstate System Adjustments

"(b) Subsection (d) of section 103 of title 23, United States Code, is amended by adding at the end thereof the following new paragraph:

"(3) In addition to the mileage authorized by paragraphs (1) and (2) of this subsection, there is hereby authorized additional mileage of not to exceed 1,500 miles for the designation of routes in the same manner as set forth in paragraph (1), in order to improve the efficiency and service of the Interstate System to better accomplish the purposes of that System."

IM 10-3-68 Enclosure C page 3

"Criteria for Selection of Interstate System Routes

"1. Connection with city approach routes

"For the service of Interstate System traffic and other traffic bound in and out of the city to and from exterior points, the routes selected should provide for convenient collection and delivery. Although the Interstate routes must bear a proper relation in location and character to other parts of the street system, they will be the routes of principal service to the Interstate System traffic.

"4. Circumferential and distributing routes

"Routes which avoid the business centers of cities are needed to serve traffic bound to or from points other than the center of the city. Such routes may be so located as to serve both as arteries for through traffic around the city between various approach highways and as distribution routes for the movement of traffic with local origins and destinations to and from the various quarters of the city. The pattern of such routes depends upon the topography and plan of each particular city. At many of the relatively large cities the need is for routes completely encircling the city. In some of the larger cities a belt route near the central business district may be needed in addition to an outer circumferential route."

6. The proposed extension of I-305 is in agreement with the cooperative Transportation Study (Salem). The public hearing of July 11, 1968 for the approved section of I-305 disclosed that the Salem City Council, the Marion County Board of Commissioners and the Polk County Board of Commissioners highly recommended the proposed extension of I-305.

7. The proposed Interstate funding for the construction of the proposed extension is as follows:

Deferred Construction

I-82	(Preliminary Engineering	$ 766,000
	(Right of Way	1,140,000
	(Construction	28,320,000
I-405	Ramps	2,438,000
		$32,766,000

Requested Construction

I-305	2.34-mile extension	$21,400,000
*I-305	1.1-mile extension (Industrial Freeway Sec.)	11,000,000
		$32,400,000

*Approved under Mr. Baldwell's letter of December 24, 1968.

We trust the above information will permit your reconsideration and approval of our request for the additional 2.34-mile Interstate extension of I-305.

Very truly yours,

Forrest Cooper
State Highway Engineer

Attachments

bc: R. L. Porter
F. B. Klaboe
F. D. Morgan
F. B. Crandall
D. J. Barbee
L. H. Young
R. N. Chase

RECEIVED
DEC 1 1968

UNITED STATES GOVERNMENT

FOR FHWA

Memorandum

I-405-8(22) 304

Klaboe

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7310

FROM : for R. E. Simpson, Division Engineer
Salem, Oregon

RER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: December 5, 1968

In reply refer to: 08-35-DA

SUBJECT: Oregon I-5-6( ) East Fremont Interchange

Mr. Klaboe's letter dated October 17, 1968 requested our reconsideration of a decision to defer the construction of the ES, EE, EN and NE ramps until firm commitments are made for the construction of the Northeast freeway.

This matter has been thoroughly reviewed and the traffic conflicts mentioned in Mr. Klaboe's letter studied. There is every indication that the traffic conflicts may be lessened between the Banfield Freeway northbound on ramps and the Broadway - Widler street off ramp on I-5; however, it is apparent that this conflict will be transferred northerly along the I-5 to a point between the northbound Broadway on ramp and the SE ramp of the East Fremont Interchange. A more serious conflict will occur on the southbound lanes of I-5 between the ES ramp and the Broadway off ramp.

Based on these studies we feel that our previous decision to defer construction of the ES, SE, NE, and EN ramp was proper. Therefore, the construction of these ramps should not be included in the upcoming construction contracts for the East-Fremont Interchange.

copies to Barbee
Young
12-6-68

Copy - Merchant
12-11-68

RECEIVED
DEC 6 1968
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
DEC 11 1968
FOR FILING

I-405-8(22)304
1310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 18, 1968

SUBJECT: East Fremont Interchange
Stadium Freeway
Multnomah County

To: Mr. F. B. Klaboe
Assistant State Highway Engineer
Building

Enclosed is a plan and cross-section of a portion of the S-E line of the East Fremont Interchange. This details the right of way needs through Block #13, Riverview Addition, in which the city of Portland is building the Kerby Yard facility. The right of way has already been acquired through this block previous to the City development.

The City desires the maximum area for their use, so the proposal has been made to retain right of way only to a line 40 feet from the construction centerline. This will allow enough room for minimum plantings outside the curb as shown in cross-section. The remainder of the right of way could then be released to the City, subject to a slope easement, and the City could construct a wall outside the right of way line, thus gaining maximum use of the remainder.

D.J. Barbee

D.J. Barbee
Design Engineer

NOTED
F. B. KLABOE

JT:jp
Attach

Retd to Barbee
12-11-68

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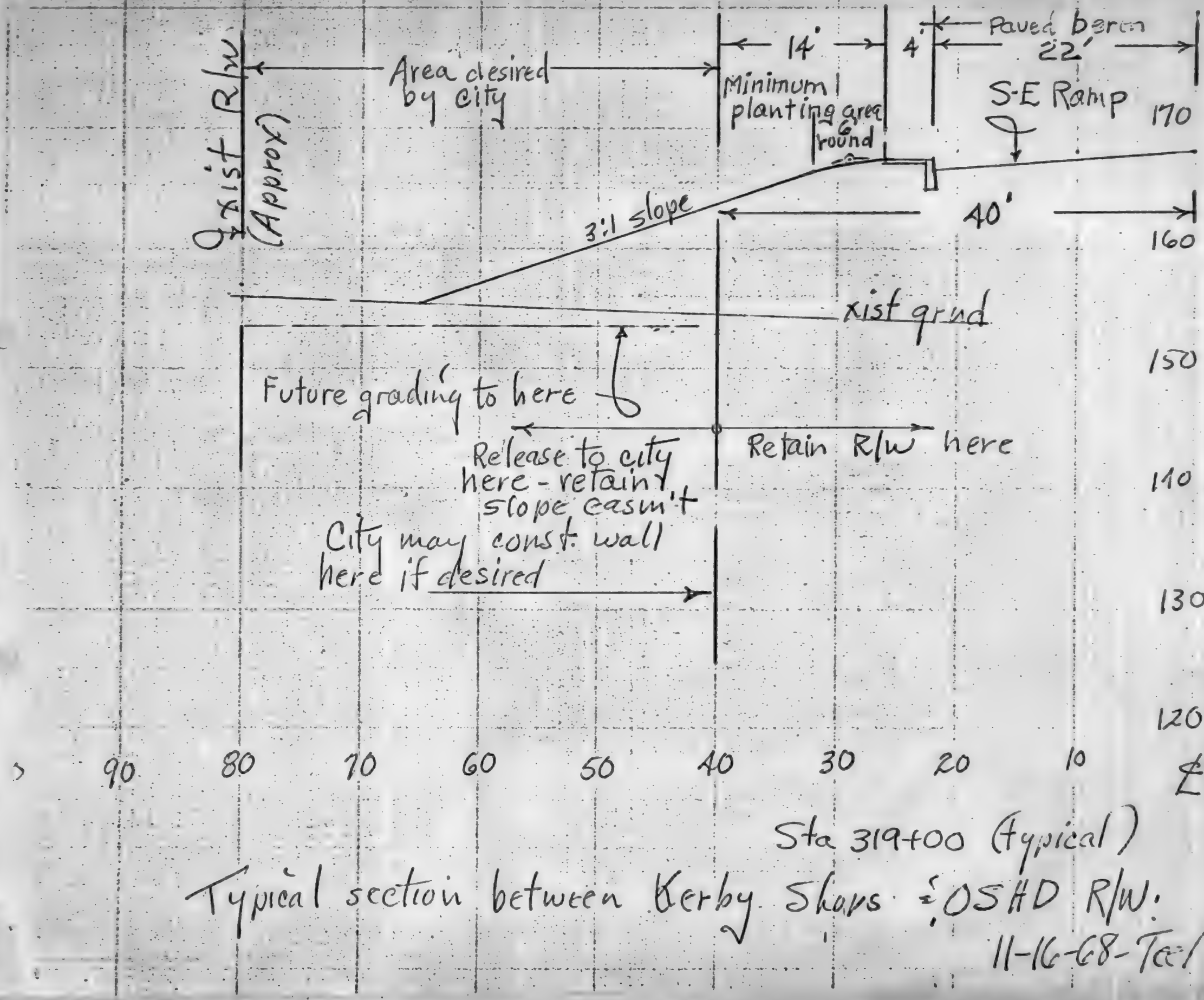
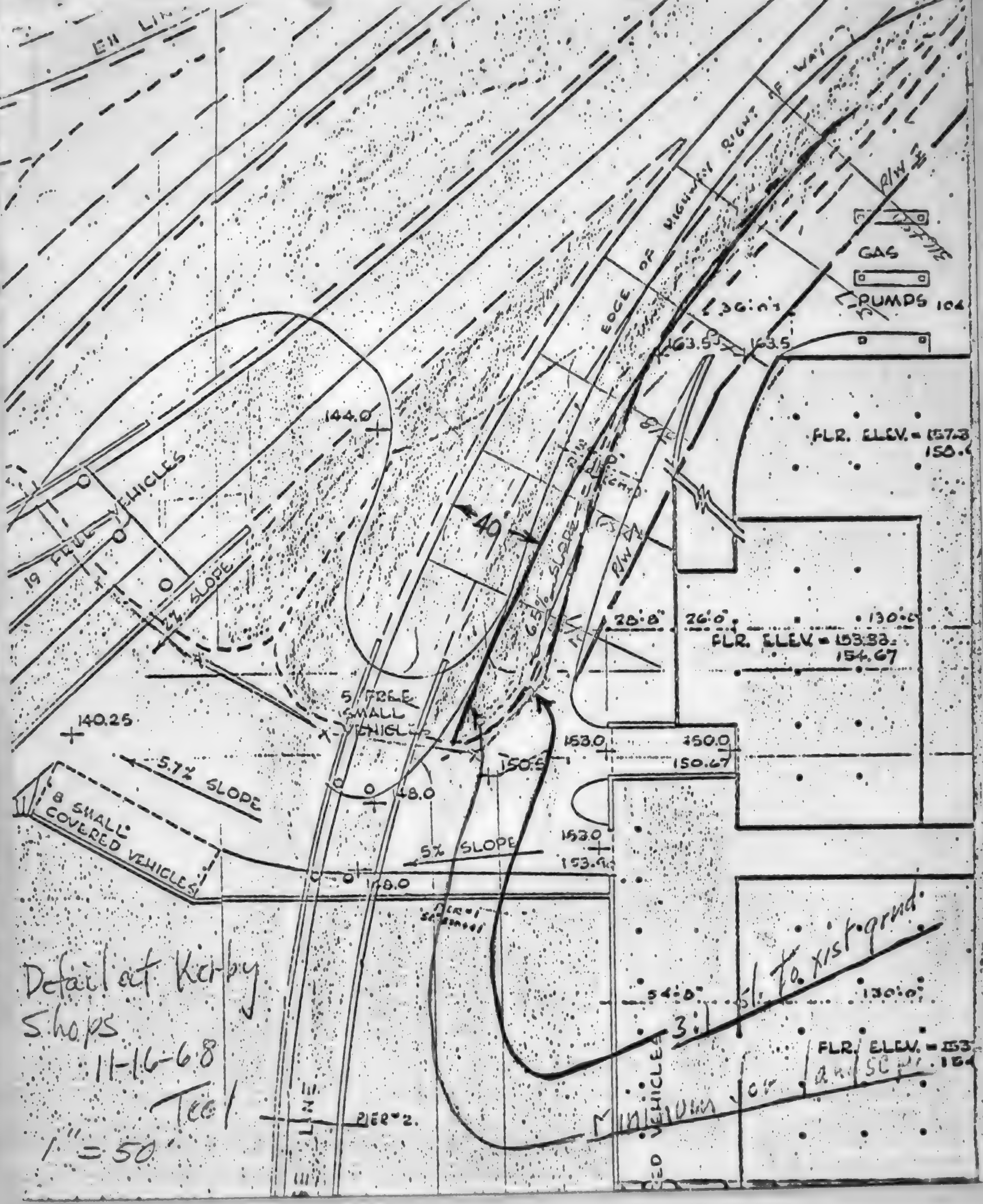
NOV 19 1968
OFFICE OF
STATE HIGHWAY ENGINEER



Sta 319+00 (typical)

Typical section between Kerby Shops & OSHD R/W.

11-16-68-Tec



Detail at Kirby Shops
11-16-68
Tee 1
1" = 50'

RECEIVED
JUN 28 1968
FOR FILING

I-405-8(22)304
7310

5 RW

June 28, 1968

Mr. Herbert H. Schwab
Rives and Schwab
Public Service Building
Portland, Oregon 97204

2364

Dear Mr. Schwab:

Re: East Fremont Interchange, Stadium Freeway, Multnomah County

As requested in your letter of June 24, there is enclosed a sketch map similar to the one previously sent you on June 14. Shown thereon are arrows for the moves to and from the proposed Fremont Bridge.

Russell Street was used to indicate the pattern; however, any other east-west street north of it that remains open could be used. Mississippi Avenue, also, could be used in conjunction with Fremont Street in moving to the Fremont Bridge.

Very truly yours,

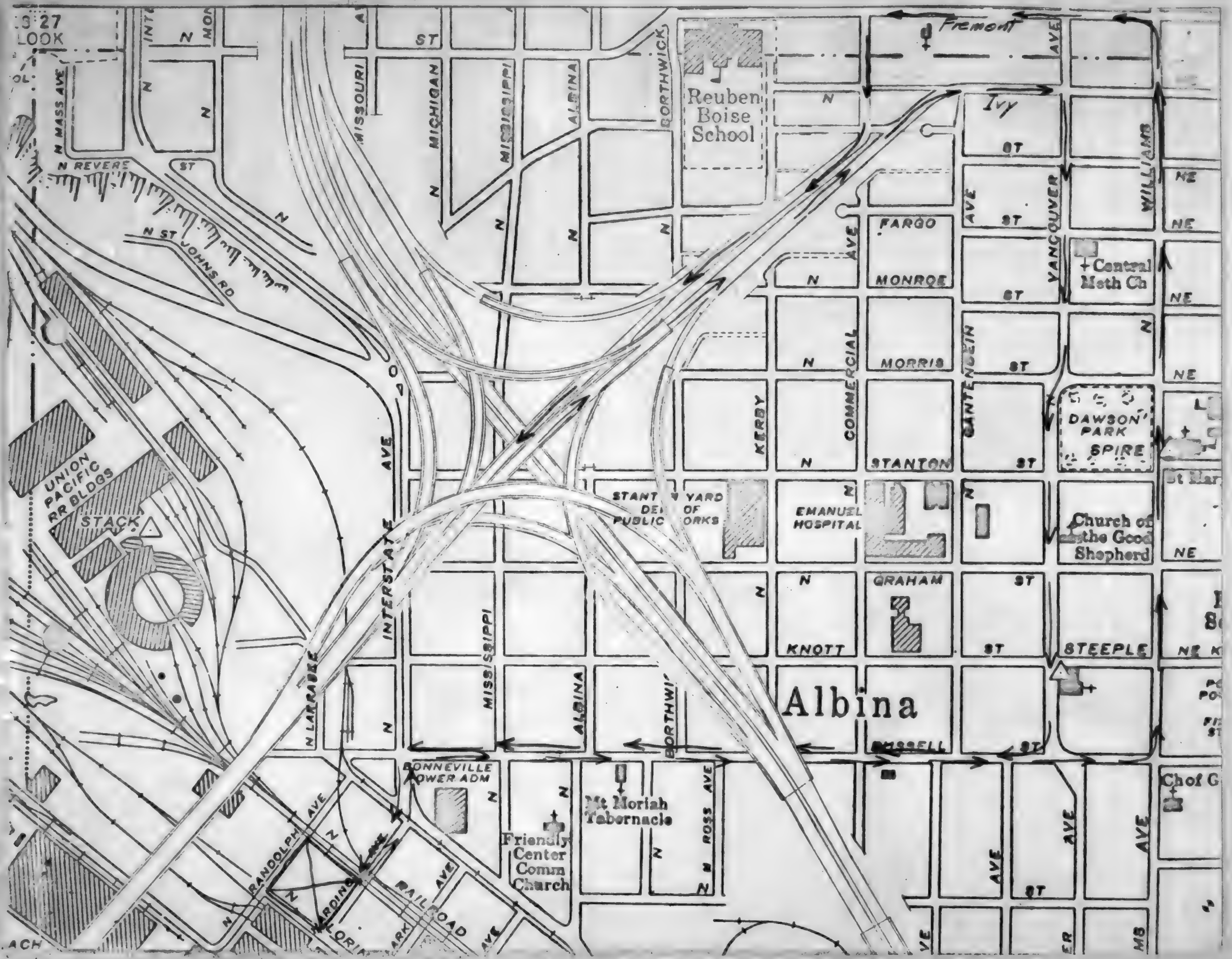
Forrest Cooper
State Highway Engineer

By

F. D. Klaboe
Assistant State Highway Engineer

Enclosure

cc: Glenn L. Jackson
Forrest Cooper
R. L. Porter
Victor D. Wolfe - FBK 2364
F. D. Morgan


3 27
LOOK
N MASS AVE
N REVERE
ST
N ST JOHNS RD
UNION PACIFIC RR BLDGS
STACK
MISSOURI
N MICHIGAN
MISSISSIPPI
ALBINA
BORTHWICK
Reuben Boise School
FREMONT
AVE
IVY
ST
YANCOUVER
WILLIAMS
NE
FARGO
MONROE
MORRIS
STANTON
KERBY
COMMERCIAL
VANTENGEN
DAWSON PARK
SPIRE
+ Central Meth Ch
STANTON YARD
DEPT OF PUBLIC WORKS
EMANUEL HOSPITAL
Church of the Good Shepherd
GRAHAM
KNOTT
STEEPLE
Albina
RUSSELL
INTERSTATE
N LARRABEE
MISSISSIPPI
ALBINA
BORTHWICK
BONNEVILLE POWER ADM
Friendly Center Comm Church
Mt Moriah Tebernacle
N ROSS AVE
RANDOLPH AVE
HARDING AVE
RAILROAD AVE
FLORIA
ARK
AVE
ST
N
NE

RIVES & SCHWAB
(RIVES & RODGERS)
(BONYHADI & HALL)
ATTORNEYS AT LAW
PUBLIC SERVICE BUILDING
PORTLAND, OREGON 97204

TELEPHONE 224-3920
AREA CODE 503

GEORGE D. RIVES
HERBERT M. SCHWAB
LEONARD BENNETT
ERNEST BONYHADI
BRUCE MacGREGOR HALL
HUGH SMITH

ROBERT F. HARRINGTON
GERARD K. DRUMMOND
ROBERT D. STEINMETZ
HARDY MYERS, JR.
LARRY R. VOLCHOK
LEONARD A. GIRARD

ALLAN A. SMITH
DONALD A. SCHAFER
OF COUNSEL

June 24, 1968

Routing

Morgan
Decker
Bond
Barbee
Walker
Glenn
Swan

Pease
Morelock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
JUL 25 1968
CONSTRUCTION
DIVISION

F. B. Klaboe, Assistant State
Highway Engineer
State Highway Department
State of Oregon
Salem, Oregon 97310

Dear Mr. Klaboe:

Thank you for your letter of June 14th enclosing two copies of a map, one of which I am attaching to this letter.

Would you mind indicating, if such is not out of order and if the area appears on this map, where the closest point of access to and egress from the bridge is in reference to the Harding Avenue property marked with a blue check-mark in the upper left-hand corner.

If the access and egress are not on the map, could you advise me where it is in terms of street location, and approximately how far it is in blocks from the property in question.

Sincerely,

RIVES & SCHWAB

Herbert M. Schwab (f.n.)
Herbert M. Schwab

Enc.

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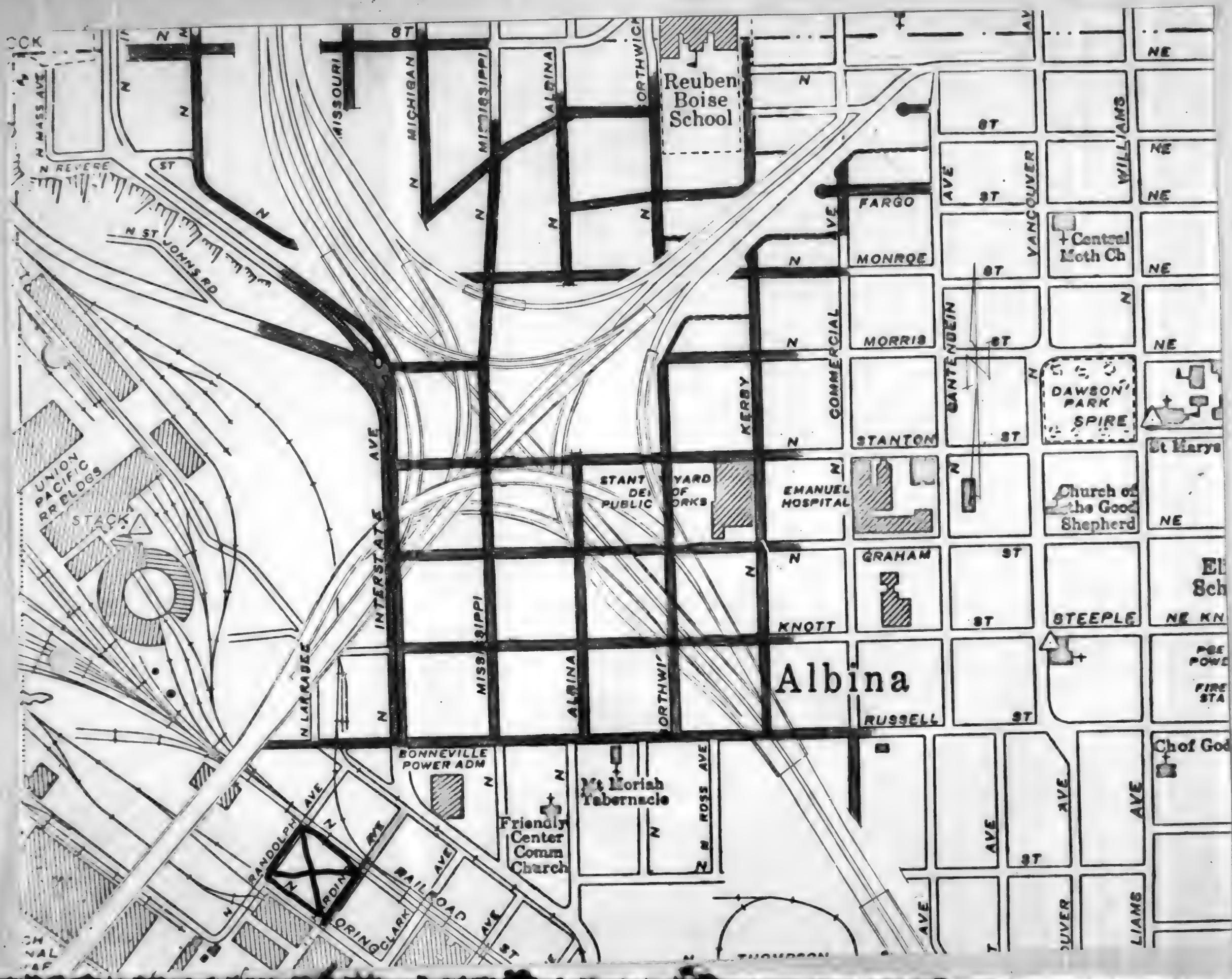
JUN 25 1968
OFFICE OF
STATE HIGHWAY ENGINEER


Reuben Boise School
MISSOURI
MICHIGAN
MISSISSIPPI
ALBINA
N REVERE
N ST JOHNS RD
N MASS AVE
UNION PACIFIC RR BLDGS
STACK
INTERSTATE AVE
N LARRABEE
BONNEVILLE POWER ADM
Friendly Center Comm Church
Mt Moriah Tabernacle
N ROSS AVE
RANDOLPH
RAILROAD AVE
ALBINA
MISSISSIPPI
KERBY
COMMERCIAL
FARGO
MONROE
MORRIS
STANTON
GRAHAM
KNOTT
RUSSELL
STEEPLE
VANCOUVER AVE
WILLIAMS
BANTENDEIN
DAWSON PARK
SPIRE
EMANUEL HOSPITAL
Central Meth Ch
Church of the Good Shepherd
St Marys
Albina

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JUN 17 1968
HWY. PLANS

Copy
Hwy
Munk - Portland
E Forrest Let.

June 14, 1968

Mr. Herbert M. Schwab
Rives & Rodgers
1400 Public Service Building
Portland, Oregon 97204

Dear Mr. Schwab:

Mr. Glenn Jackson requested that I forward maps showing the East Fremont Interchange with particular reference to the closing of local streets. Two copies of such a map are enclosed.

The red colored streets superimposed on the interchange layout will be left open. Those streets that will be closed have been deleted from the street pattern. New streets to be constructed are shown by a dashed outline also colored red. The streets left uncolored are not in conflict and will not be affected.

Naturally, all streets are on the ground level and are below the interchange proper. Harding Avenue (shaded blue) is, as you will note, not in conflict with our facility.

If we can be of any further assistance, please advise.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klabee
Assistant State Highway Engineer

cc Glenn L. Jackson

bc Forrest Cooper
R. L. Porter

F. D. Morgan

Reuben Boise School
N MASS AVE
N REVERE
ST
N ST JOHNS RD
MISSOURI
MICHIGAN
MISSISSIPPI
ALBINA
NORTHWICK
UNION PACIFIC RR FLDGS
STACK
INTERSTATE AVE
N LARRABEE
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EMANUEL HOSPITAL
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ROSS AVE
RANDOLPH AVE
HARDING AVE
CLARK
RAILROAD AVE
THOMPSON

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APR 23 [illegible]

FOR FILE

I-405 8(03)302
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OREGON STATE HIGHWAY DEPARTMENT
INTER-DEPARTMENT CORRESPONDENCE

March 7, 1968
Salem, Oregon

NOTED
R. L. PORTER

To: MEMO TO THE FILES

SUBJECT: Meeting with UPRR
East Fremont Interchange Section
Stadium Freeway
Multnomah County

On March 4, 1968, a meeting was held in the conference room of the Union Pacific Railroad Company, Pittock Block Office, with the following people present:

Representing the Union Pacific Railroad Company:

H. B. Durrant, Division Engineer
A. V. Didier, Asst. Division Engineer
G. M. Tabor, Public Projects Engineer
F. W. Deakin, Asst. Engineer

Representing the Oregon State Highway Department:

A. E. Johnson, Metropolitan Engineer
T. W. Litchfield, Utilities Liaison Engineer

This meeting was requested by the undersigned for the purpose of advising the railroad the results of our investigation concerning the treating with fire resistant materials the roofs of several buildings adjacent to the proposed East Fremont Interchange, and to advise them concerning the type of building to be allowed by the State and the Bureau of Public Roads to be constructed beneath these highway structures.

I opened the meeting by advising them that the State would not consider treating the roofs of the Division Headquarters, Maintenance of Way Office Building, the Republic Car Loading Building or the Freight house. This statement was made after conversations with Mr. Gordon E. McKinnon, Associate Editor of Fire Technology, a publication of the National Fire Protection Association, 60 Battery March Street, Boston, Massachusetts, 02110. He advised that in his experience he knew of no case where a fire had been caused by a burning ember being tossed from a highway structure onto the roof of a building below. This was reiterated by a conversation with Mr. Harry Kagan, Chief Negotiator of the California Highway Department in Sacramento, who advised that the State of California had never considered such a thing an element of damage unless it was directly beneath the structure. He further pointed out that such a payment would have far reaching effects in that there would be no end to the amount of damage to be paid by not only Oregon but other highway departments. Further,

at my request, Mr. Charles Snow, Regional Utility Engineer of the Bureau of Public Roads in Portland, contacted his counterpart in New York State and found that no such damage had ever been paid in that area except in a situation where the building occupied the area directly beneath the highway structure. In that instance the building was made fire resistant as a protection to the bridge, more than a protection to the building.

The railroad insisted, of course, that the danger was real, that they would have to have some protection from the hazard introduced by the highway structure above their property, and therefore could not accept our statement in this regard. They will attempt to present us with evidence justifying their request for fire resistive treatment to the roofs of the buildings mentioned previously. They also suggested that this would cause a higher insurance rate, if the railroad were under the jurisdiction of the Oregon Insurance Rating Bureau. I discussed this with Mr. H. E. Marqueling, Manager of the Oregon Insurance Rating Bureau, and he advised that if they had jurisdiction in such a case they could not justify an increase in rates for this type of exposure based on their experience to date. This opinion was bolstered by my phone conversation with Mr. Alan Stevens, Director of Fire Protection, Liberty Mutual Insurance Company, Boston, Massachusetts, 617-542-4850, who said "relax and quit worrying." The other main subject of conversation was the requirement for buildings to be built by the railroad beneath the structure built by the State. The Railroad was advised that we would have to insist upon the highest type construction of any building within the easement area, unless the railroad could provide us with the size and occupancy proposed of any specific building. The railroad insisted that in view of the approximate 90-foot clearance beneath the structure, they wanted defined an airspace bounded by a specified horizontal clearance from the columns of the bridge and a vertical clearance beneath the lowest point of the steel of the deck assembly which the railroad would have as an unrestricted space in which to construct any type of building they desired. It appears logical that such a space could be defined, taking into view the use restrictions we are imposing on the area beneath the structure and existing building codes and fire zones affecting this area. The railroad pointed out they are presently in fire zone 2 and can build a Type IV structure. Upon reviewing the City of Portland Building Code, it appears that we can allow any type of occupancy of a building beneath the structure except those in Group E-1, 2 and 3 and Group F-1. There are certain limitations set up in the building code with regard to floor space and building height as related to the occupancy. These are shown in the City of Portland Building Code in tables 5-C and 5-D. It appears that taking these things into account, it can be determined whether we can accept a Type IV building with any occupancy other than those in Groups E-1, 2, and 3 and F-1 beneath our structure. We can define therefore, a minimum clearance to the piers and a minimum clearance to the overhead structure that can be allowed by the Type IV building. Anything that encroaches within these clearances would have to be cleared with the State, the Bureau of Public Roads, and the City of Portland prior to construction to assure that the proper type of building will be built in compliance with the building codes and will provide adequate protection to the overhead structure.

The positive definition of these facts will minimize the damage we are going to pay to the railroad for the aerial easement and will make the determination of the damage less difficult. It is recommended that the matter of rebuilding be studied thoroughly with due regard to the City of Portland Building Code, the fire zones, and our overhead structure so that we may more accurately define the restrictions we intend to impose on the railroad's use of their property beneath this interchange.

With regard to the Fremont Bridge in general, the problems with the railroad left to be resolved are (1) the disposition of the National Car Loading Warehouse, (2) the fire resistant treatment of adjacent buildings, and (3) the moving of the spur tracks in Loring Street in conflict with the construction of Pier 2E. The first and third mentioned items are presently in the hands of the Regional Attorney of the Bureau of Public Roads, Mr. Barry Rutledge, and we cannot proceed further until we receive advise from him. The second mentioned item will be further investigated by the undersigned prior to our next meeting with railroad people.

Other points brought up concerning the actual construction of the bridge were the handling of railroad personnel working in the area during construction, the timing of beam erection across operating tracks, and various other matters concerning the actual construction procees which will have to be examined thoroughly and worked out in detail with the railroad people. They pointed out that it will be very difficult to work in a building adjacent to pile diriving and other construction activitites. The secretary's union of the railroad has been apprised of the matter, and there is no doubt that we will hear more about this as our plans are developed.

ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss

cc: R. E. Simpson
R. L. Porter
F. B. Klaboe
Tom Edwards
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
Carl Smith
J. J. Smith

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APR 18 1968
OFFICE OF
STATE HIGHWAY ENGINEER

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JAN 22 1968

FOR FILE

I-405-8(22) 304
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OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

January 17, 1968
Salem, Oregon

To: MEMO TO THE FILE

SUBJECT: Meeting with UPRR
East Fremont Interchange Sec.
Stadium Freeway
Multnomah County

On January 9, 1968, the following representatives of the Union Pacific Railroad Company, the Oregon State Highway Department, and the City of Portland met in the Conference Room of the Railroad's Pittock Block Office at 10:00 a.m.

Representing the Union Pacific Railroad Company:

R. E. Haacke, District Engineer
H. B. Durrant, Division Engineer
A. V. Didier, Asst. Division Engineer
G. M. Tabor, Public Projects Engineer
F. W. Deakin, Asst. Engineer
L. T. Monaco, Land & Tax Agent
L. J. Bergmann, General Attorney

Representing the City of Portland:

R. C. Crank, Chief Building Inspector
J. H. Riopelle, Fire Marshall

Representing the Oregon State Highway Department:

A. E. Johnson, Metropolitan Engineer
Jack L. Sollis, Staff Attorney
T. W. Litchfield, Field Utilities Liaison Engineer

In the railroad's letter of October 5, 1964, they indicated that the railroad's Division Headquarters Maintenance of Way office building and Republic Car Loading Buildings should be "fireproofed" as a result of the proposed construction of the East Fremont Interchange. Since that time there has been considerable discussion among representatives of the Railroad, Highway Department and City of Portland concerning what was necessary to properly protect these buildings to conform to the existing building codes. The purpose of this meeting was to obtain a clearer understanding of what is to be required by the City and what is desirable for proper protection of both the railroad and highway facilities when this bridge is built.

Messrs Crank and Riopelle made it clear that the building code, while written down, is subject to change without notice and that reference to it as such will not adequately protect the railroad or the highway from the construction of a building which could be detrimental to the highway structure. He pointed out that there is no such thing as a "fireproof" structure. The proper term is "fire resistant". The lowest type structure is a "5N" structure with no fire resistance whatever. The highest type is a "1" which has 4 hours fire resistance. To adequately protect our bridge it would be necessary to have type "1" structures beneath it. There is also the chance of a lesser type structure being constructed with a sprinkling system installed which would be 96% safe.

Mr. Riopelle also pointed out that while the building code indicated that a roof truss could be built out of unprotected steel if there was 27 feet clearance from the bottom chord to the floor and be safe from fire damage, actual practice proved this was not the case. He indicated that if 100 feet clearance from the bridge were maintained it would be acceptable to have 1 hour construction. He further stated that when a bridge is built over a building it reduced the rights of the owners to develop this building to its ultimate and affected the development of adjacent buildings. He pointed out that his experience indicated that there was indeed danger from cigarettes and other inflammable material being thrown from the top of the bridge to adjacent buildings, and that one could consider the fire zone, or the zone in which buildings should be projected, to be a prism with the top of the handrail as the upper limit and a 1:1 slope projected from the handrail to the ground or to the roof of any building below. Anything falling within this prism would be in danger from combustable objects being thrown from the bridge and should be properly protected.

Further discussion indicated that the low flat building would be less hazard to the bridge, or more easily controlled in case of fire, than a tall building. For this reason it appeared that criteria could be developed which would provide for a lesser type construction if a building were single story or equivalent, while a higher type construction would be required for buildings built beneath the bridge two stories or greater in height. The railroad indicated that they would not have storage buildings under the bridge but only car loading buildings, and that the height of car loading buildings would be from 16 to 20 feet from the floor to the bottom cord of the roof truss. The possibility of constructing a heat shield beneath the bridge, such as was done on the East Marquam Interchange, was discussed but this may not adequately protect the building from objects thrown off the bridge.

Names of Fire Consultants were mentioned by Mr. Riopelle, but it was decided that to hire such a consultant for something so variable and unpredictable as fire would lead to additional expense and an elaborate report setting forth lots of theory. In the final analysis we would rely upon the practical judgment of Mr. Riopelle, so we decided that the Railroad and the State would develop criteria which will provide both parties with the protection that they should have. After the Railroad and State can agree on the criteria for the proposed buildings, we will again consult Mr. Riopelle for his opinion and advice.

The removal of the track in N. Loring Street, which will conflict with the construction of Pier 2E, was also discussed. They took violent opposition to the request made in my letter ofDecember 4, 1967, that stated the Railroad should move their track in the city street at their own expense, since it was occupying the street by virtue of the city ordinance requiring this removal or relocation at railroad expense when requested by the City. Mr. Haacke stated that insofar as the railroad was concerned they would remove the track and not replace it, leaving the State to deal with the industry served by the track, and the Interstate Commerce Commission as required. On January 16, Messrs Sollis, Hesla and I met with Miss Marian Rushing, Chief Deputy City Attorney for the City of Portland. She advised us that the City had no police power to force any railroad to relocate any track. The City has only the power to force a railroad to remove spur tracks. This subject will be covered by other correspondence. The railroad has been advised by phone, and will provide us with an estimate of this cost.

We also discussed the relocation of the National Car Loading Building and gave to them four sets of the 10 proposals prepared by the Metropolitan Division. We advised them that the Bureau of Public Roads has referred the matter to the Washington Office for final decision as to whether this property was operating or non-operating. In the meantime we were considering different locations for this building, shouldit be determined that this was operating property. They said they would study the plans and advise us as to which ones would be acceptable to the railroad.

ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Utilities Liaison Engineer

TWL:ss

cc: A. W. Parsons
R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

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JAN 18 1968
OFFICE OF
STATE HIGHWAY ENGINEER

DEC 14 1967
FOR FILING

I-405-8(22)304
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R.L.

December 14, 1967

Mr. James McDonald
World Trade Building
Portland, Oregon 97204

Dear Mr. McDonald:

This is in response to your December 8 letter concerning that portion of the Albina Dock that is necessary for the construction of Interstate 405 in Portland.

The matter was discussed with Mr. R. T. Fisher and he was told that if the State could have possession of the premises required by March 1, 1968, no problem is anticipated. This means that the area would be available on that date.

If anything further is needed, please let us know.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms

cc Forrest Cooper
Tom Edwards
F. B. Klaboe
I. D. Marchant
D. E. Moehring
A. E. Johnson

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DEC 11 1967
OFFICE OF
STATE HIGHWAY ENGINEER

JAMES McDONALD
[redacted]
WORLD TRADE BLDG.
Portland, Oregon

December 8, 1967

Mr. R. L. Porter
Deputy State Highway Engineer
State Highway Department
Salem, Oregon 97310

Re: File No. 35108
Fremont-Sunset Interchange
Stadium Freeway
Pacific Highway
Multnomah County

Dear Mr. Porter:

We have received notice from the Portland office of the State Highway Department to vacate not later than January 1, 1968 that portion of Albina Dock No. 3 which was taken by the State for the Fremont Bridge and which we have been occupying under rental agreement executed June 16, 1967.

It is my understanding that, upon giving you written assurance that we will vacate these premises not later than March 1, 1968, which assurance we hereby give you, we may remain in possession of the premises covered by such rental agreement until March 1, 1968.

We shall appreciate your confirming this by signing and returning the copy of this letter enclosed for that purpose, or by such other communication as may be appropriate.

We appreciate your courtesy and cooperation in this matter.

Very truly yours,

cc - Mr. H. V. Jackson
District Property Agent
State Highway Department
5821 N.E. Glisan Street
Portland, Oregon 97213

The foregoing is hereby confirmed this 8th day of December, 1967.

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Salem, Oregon
December 4, 1967

John Gahse
Asst. Right of Way Engineer

I. D. Merchant
Bridge Engineer

L. H. Young
Office Engineer

On Friday, December 1, I was contacted by Roland T. Fisher, Vice President of Waterway Terminals (a Crown Zellerbach subsidiary) whose company occupies a portion of the Lachenbach Terminal on the easterly bank of the Willamette River at the Fremont Bridge site.

Mr. Fisher complained that they had just received notice to move and that it was causing a severe hardship on their company. They apparently store paper in the terminal and at the moment have no place to move their stock. He asked for as much consideration as possible.

I mentioned that the matter had been discussed the day before with Chairman Jackson and that consideration was being given to additional time up to January 25. Mr. Fisher said that this would not provide his company with sufficient time to relocate and asked for further consideration.

After checking with Ivan Merchant who, in turn, checked with the Bureau of Public Roads, Mr. Fisher was told that if the owners of the premises would have the building cut off so that it would be available on March 1, 1968, to the State's contractor to demolish, this would be satisfactory.

Will those of you who are concerned take steps accordingly.

R. L. Porter
Deputy State Highway Engineer

RLP:ms
cc Forrest Cooper
Tom Edwards
F. B. Klaboe
Victor D. Wolfe
A. E. Johnson

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FOR FILM

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Salem, Oregon
November 30, 1967

John Oakes
Assistant Right of Way Engineer

BUILDING

On this date, Chairman Jackson stated that he had been contacted by the attorney for Albina Dock (Lushenbach Terminal) requesting that they be given additional time to vacate and cut off the building.

After checking with the Bridge Division, I told Mr. Jackson that if Albina Dock would guarantee to have their work done by the time of the contract, no problem would result to the Highway Department. Mr. Jackson will explore this with Albina Dock's attorney.

R. L. Porter
Deputy State Highway Engineer

RLP:ms
cc Forrest Cooper
Tom Edwards
F. B. Klobes
Victor D. Wolfe

FORM E-123

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
HELIX

DEC 21 1967

FOR FILING

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PLI

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310
October 27, 1967

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97301

Re: File R-35106
Northern Pacific Terminal
Company of Oregon
File R-35105
Spokane, Portland & Seattle
Railway Company
Fremont Interchange-Sunset Interchange
Section
Stadium Freeway

Dear Sir:

On file 35105, the Oregon State Highway Department is not acquiring fee title to the land needed for the west end of the Fremont Bridge because the only pier located on this land is out of the area of the tracks, but the bridge structure does cross the main switching tracks of the Spokane, Portland & Seattle Railway Company. To acquire fee title with complete access control would cut the busiest switching yard in Portland and the damages would be excessive. By just taking a permanent easement we are reducing the right of way costs with the minimum of interference with the railroad operations.

NOTED
F. B. KLABOE

Attached as Exhibit "A" is a copy of the nature of the easement, descriptions of the area of the taking and the restrictions placed on the taking and adjacent areas.

Attached as Exhibit "C" is a map showing the taking in yellow (Parcel 3 is for a grade crossing so no description is enclosed), the area where no buildings will be allowed shown cross hatched in yellow and the area where any buildings built would have to have a 1-hour fire wall.

The existing warehouse on Parcel 1 is being cut off 139.6-feet from the FB3 centerline.

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OCT 30 1967
OFFICE OF
STATE HIGHWAY ENGINEER

The existing grade crossing under the proposed bridge willbe vacated and relocated northerly as shown on Exhibit "C".

Attached as Exhibit "D" are drawings showing the pier located on Parcel 1 and the vertical clearances over the area of the taking.

On file 35106, the Oregon State Highway Department is not acquiring fee title to the land needed for the west end of the Fremont Bridge because there will be no piers located in the area of the taking and all we need is an air right for the bridge structure. To take a fee title with access control would be very expensive as we would cut the busiest railroad switching yard in Portland and the damages would be excessive.

By just taking a permanent easement we are reducing right of way costs with the minimum of interference with the railroad operations.

Attached as Exhibit "B" is a copy of the nature of the easement,-descriptions of the area and the restrictions placed on the taking and adjacent areas.

Attached as Exhibit "C" is a map showing the taking in orange.(Parcel 2 is for a grade crossing so no description is enclosed), the area where no buildings will be allowed shown cross hatched in orange and the area where any building built must have a 1-hour fire wall outlined in orange.

Attached as Exhibit "D" are drawings showing the vertical clearances of the bridge structure over the railroad tracks and pier locations.

We request your approval on these two files and then forwarding ofthe material to the Director for final approval.

Very truly yours,

G. E. ROHDE
Chief Counsel

By
JACK L. SULLIS
Utilities & Railroad Attorney

JLS:ja
Attachments

cc: R. L. Porter
F. B. Klaboe
G. E. Rohde
Frank C. McKinney
T. W. Litchfield

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OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 27, 1967

SUBJECT: E. Fremont Right of Way
Fremont Bridge
Br. No. 2529

To: Mr. Dave Moehring
Right of Way Engineer

BUILDING

This is with reference to the steel building now under construction on former PP&L property northerly from the Fremont Bridge and bounded by N. River Street, Hassan Avenue and North Loring Street.

I am enclosing a set of drawings furnished by the consulting engineers for the owner of this building - one print each of Dwgs. Nos. 22850 and 22851, three letter-sized copies of details indicating the building and the bridge in elevation and plan and a copy of the proposed building permit.

I have contacted the consulting engineers on this matter and they have concurred that for the type of building the occupancy as proposed, the location and the vertical air cushion to the closest steel that there will be no danger to the bridge structure from fire. A copy of their letter is enclosed confirming the above. This matter has not been discussed with the Bureau by the Bridge Division and I presume that you will do this at the earliest possible time.

It is our belief that the State should permit the building construction to proceed on the basis of a deed restriction to restrict the occupancy and useage of this building to the use indicated on the drawings for steel storage. The State should take steps to protect itself from a similar situation on the southerly side of the Fremont Bridge right of way which area, I believe, now is unimproved property.

Please advise if there is anything further I can do in this matter.

NOTED
TOM EDWARDS

Ivan D. Merchant
Bridge Engineer

RECEIVED
OCT 31 1967
OFFICE OF
STATE HIGHWAY ENGINEER

IDM:mb
cc: Tom Edwards

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OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

September 27, 1967
Salem, Oregon

To: MEMO TO FILE

SUBJECT: Meeting with UPRR
East Freemont Intchg. Section
Stadium Freeway
Multnomah County

On September 22, 1967, a meeting was held in the Conference Room of the State Highway Building at which representatives of the Highway Department and the Union Pacific Railroad Company discussed the above-captioned project.

Representing the Union Pacific Railroad Company:

R. E. Haacke, District Engineer
H. B. Durrant, Division Engineer
A. V. Didier, Assistant Division Engineer
G. M. Tabor, Public Projects Engineer
L. T. Monaco, Land and Tax Agent
L. A. Fisher, General Industrial Agent
L. J. Bergmann, General Attorney

F. B. KLABOE
FILED

Representing the State Highway Department:

F. B. Klaboe, Assistant State Highway Engineer
I. D. Merchant, Bridge Engineer
F. D. Morgan, Construction Engineer
D. J. Barbee, Assistant Construction Engineer
A. E. Johnson, Metropolitan Engineer
J. R. Oakes, Assistant Right of Way Engineer
J. J. Smith, Right of Way Supervisor
J. L. Sollis, Staff Attorney
Richard Unrein, Field Engineer, - County-City Division
T. W. Litchfield, Utilities Liaison Engineer

Mr. Klaboe opened the meeting by outlining the negotiations as have occurred to date and summarized the results of the past discussions with railroad people. Mr. Merchant indicated that our consulting engineer, who is designing the East Freemont Interchange, had received approval from the railroad's assistant chief engineer during a meeting in the head office of the railroad in Omaha. Mr. Sollis then reviewed the

appraisal of the property from his letter to Mr. Klaboe dated September 21, 1967, and offered the railroad $112,000 for the air easement and National Carloading Building. We also mentioned all of the terms of the easement contained in Mr. Klaboe's letter to Mr. W. G. Johnson dated August 7, 1967, and indicated that we intended to rebuild the Yardman's Locker and Toilet Building and move the Clubhouse as a portion of the settlement.

Mr. Haacke refused our offer and insisted that the National Carloading Building is operating properly and the railroad will accept nothing less than restoration of it in kind. He further pointed out that our plans had changed from the proposal originally made in 1964. He claimed that the addition of the new ramps on the northerly side of the structure were not formally presented to their people and they found out about this through the "back door". Mr. Durrant indicated that he didn't feel we had considered their suggestions on changes in design of the ramps and that he resented our taking this up directly with their Omaha people. He further indicated that while the single column design was O.K'd by their Omaha Office, the position of the ramps on the north side of the structure had been delegated to the Portland Office to study the effect on the railroad's freighthouse.

Mr. Klaboe indicated that we had considered the number of alternates but that what is now proposed is the best that we could devise and still meet the standards which are consistent with good highway design. He offered to have our Engineers review the design in detail with railroad engineers so that these problems could be explained more thoroughly. Mr. Haacke accepted Mr. Klaboe's offer, and such a meeting was arranged for October 2, 1967, at 10:00 a.m. in the Highway Building.

The settlement of the property issue was discussed and Mr. Haacke indicated that the railroad was desirous of obtaining the Union Carbide Corp. (R/W Files 35112 and 40964) and Sauvie (R/W File 35111) properties from the State. It was made clear to the railroad that this property would be made available to the railroad only if amicable solution was possible. Should condemnation be necessary, Mr. Haacke indicated that the railroad had already agreed to the building of a bridge over their property and the question was not whether to build a bridge but in what manner it would occupy the railroad property. Therefore, it appeared that the railroad would not require us to go to the Public Utility Commissioner to obtain a certificate of necessity to condemn. Mr. Haacke also indicated that he was most anxious to reach an amicable agreement if possible, but implied that they could convince any jury that their National Carloading Building was operating property and should be handled as such. When questioned as to how this property is taxed, Mr. Monaco stated that the land was taxed as operating property, but had "no comment" on how the building was taxed.

The railroad brought up the restrictions contained in the August 7 letter and stated that they felt they were overly restrictive and unnecessary in some cases. They wanted to hear the reasoning behind some of these and have some of them removed if possible. Mr. Klaboe indicated that we would be no more restrictive with the use of the property beneath the structure than would be required by the various regulations we had to live by. The railroad commented that it appeard that the biggest obstacle was the Bureau of Public Roads rather than the Highway Department.

Another problem the railroad brought up was that of temporary quarters for their personnel at their Division Headquarters. They think that the noise of construction will be so great that it will be not possible to conduct their work while we are constructing a bridge. Therefore, they feel that we should provide temporary quarters for their personnel during the construction period and they also feel the width of easement we have requested which was originally 25 feet outside the structure is too wide and wants it reduced. The railroad would prefer a width of about 5 feet and Mr. Merchant indicated that 15 feet would be the minimum that the State could allow. They also mentioned that the railroad has plans for a mircowave system and our proposed structure may cause interference to this. They are in the process of checking this out now. Another problem they wanted us to consider was the lighting of areas beneath the bridge which will be in shadows after construction. They seem to think that the State should stand the expense of construction and maintenance of this lighting system.

Mr. Klaboe and Mr. Sollis indicated that there are three different methods of bringing this matter to a conclusion. (1) amicable settlement by the State and railroad reaching an agreement. (2) Condemnation action either by the State or, if necessary, the Bureau of Public Roads. (3) The railroad granting a permit of entry for the construction of the bridge with the matter of monetary consideration being left to be settled in Court. Mr. Haacke indicated that the Corps of Engineers has tried Federal condemnation and had been soundly beaten by the Union Pacific. Mr. Didier indicated that the permit of entry method may be acceptable.

The issues which remain to be resolved then appear to be as follows: (1) The position of the approach ramp on the northerly side of the structure must be explained to railroad engineers. (2) the various restrictions in the letter of August 7, 1967, must be discussed with the Bureau of Public Roads and modified where possible. (3) The width of easement must be reduced, if possible, to about 15 feet from the outside edge of the structure. (4) The problem surrounding the National Carloading Building must be resolved.

We agreed to take the following action in an attempt to push this matter further to a conclusion. (1) During the week of September 25 Mr. Sollis will meet with representatives of the Bureau of Public Roads and obtain a clarification of some of the restrictions contained in the August 7 letter and determine what restrictions can be removed from the conditions of the easement. He will then prepare a formal written offer to the railroad which will make a formal monetary offer for the easement and include the conditions of the exhange of property and the closure of the streets in the easement area. (2) On October 2, 1967, Mr. Durrant and others of the railroad will meet with Mr. Barbee and others of the Highway Department and review in detail the problems of moving the questionable ramps farther away from the Union Pacific Freighthouse. (3) On October 2, 1967, the State and UPRR people will meet with BPR People and the railroad will present their argument regarding the National Carloading Building being operating property. They will also discuss other matters concerning the restrictions being imposed in this easement.

(5) The railroad will provide us with a letter detailing their objections to the conditions contained in the August 7 letter.

ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss

cc: R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith
H. S. Cox

RECEIVED
SEP 28 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 8 1967
FOR FILING

UNITED STATES GOVERNMENT

Memorandum

I-405-8(22)304

Edwards

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
477 Cottage Street NE.
Salem, Oregon 97301

TO: 7.310 Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: August 4, 1967

In reply refer to: 08-35-DA

P.H.

FROM : H. W. Parsons, Division Engineer
Salem, Oregon

5970

SUBJECT: Oregon Project I-405-8(1)301
Fremont Interchange
Structure Widths

The roadway widths as proposed in your submission of June 22 have been reviewed and are approved subject to the following:

1. The SW ramp on the East Fremont Interchange is considered to consist of a single through lane plus an auxiliary climbing lane and it is necessarily restricted to a single lane at the merging end. Under these conditions we will approve a 34-foot roadway for this ramp, rather than the 40-foot width proposed.

2. For all single-lane ramps we will approve a 26-foot roadway, rather than the proposed 28-foot roadway. The 26 feet is the standard width you have been using for single-lane ramps not on structures.

3. Where roadways fork on the structure, consideration should be given to providing neutral areas in advance of the nose (for example, the SW and SE line fork has a limited neutral area where the roadways curve in opposite directions). Current practice should be liberalized with greater offset to structural elements such as bridge rails and a greater distance provided between the actual point at which the travel lanes separate. In addition, we recommend the use of some impact absorbing devices now being developed as previously discussed with your people.

4. Careful analysis should be given to lane designation in the area south of the merge of the ES and WS lines in the West Fremont Interchange.

Merchant — what widths have they approved? R/W to concur?

5. Added shoulder width for the EW and SW ramps could tend to restrict the merging distance necessary for access from the Stadium Freeway to Upshur Street because of grade restrictions. This feature should also be considered.

Copy - Young Files

(more)

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

6. As previously discussed with your people and the consultants, we strongly recommend that some type of treatment be provided to identify and delineate the wide shoulders, and which will discourage the use of the shoulders as a driving lane. We have requested further information on this from our Washington office.

In view of the complexity of the interchanges, we feel that consideration of items 3 through 6 might enhance the safety of the freeway. Peak operational traffic problems that could be aggravated by added shoulder width could also create some additional safety hazards. We therefore recommend that you give these items further study.

RECEIVED
AUG 7 - 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 23 1967
FOR FILING

Const
Proj.
Muni - Portland
E. Fremont
App.

June 22, 1967

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon

Dear Sir:

Attached are two sets of prints of the upper and lower deck approach ramp complexes to the Fremont Bridge. On these prints we have delineated shoulders in red and green. The green represents a standard six-foot shoulder, the red represents a standard 10-foot shoulder. These have been studied as to traffic operation, weaves, merges, et cetera.

We had previously made requests for full width shoulders on these approaches, which were denied by the Bureau for the reason that the shoulder widths on the Fremont Bridge itself were only four and seven feet. With the reversal of that decision to provide ten-foot shoulders, it becomes highly appropriate that the connecting roadways be built in conformance with the standard design.

We have examined very carefully the proposed pier location as set forth in the presentation made by the design consultant. We find only minor need for adjustment of the chosen locations and believe that only minor design cost changes will accrue.

We feel very strongly that, inasmuch as these are freeway elements rather than acceleration or deceleration lanes, the principles of full shoulder widths should apply. May we have your early decision.

bc Forrest Cooper
R. L. Porter
F. B. Klaboe
Victor D. Wolfe
Ivan Merchant
L. E. Young

TE:ja

Enc. (2)

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Tom Edwards
Assistant State Highway Engineer

RECEIVED
AUG 1 1967
FOR PAYMENT

E. FREMONT

I-405-8(22)304

7310

P.L.L.

Parcel #1			
	Land	$ 8,650.00	
	Building - Replace	34,673.00	- from previous appraisal
	Surface	500.00	
	Damages	3,160.00	
		$46,983.00	$ 46,983.00
Parcel #2			
	Land	$ 5,260.00	
	Building	16,500.00	- move-from previous appraisal
	Surface	100.00	
		$21,860.00	$ 21,860.00
Parcel #3			
	Land	$ 3,950.00	
	Damages	1,000.00	
		$ 4,950.00	$ 4,950.00
Parcel #4			
	Land	$ 5,250.00	$ 5,250.00
Parcel #5			
	Land	$91,476.00	
	Building	96,000.00	
	Surfacing	3,500.00	
	Damages	4,500.00	
		$195,476.00	$195,476.00
Parcel #6			
	Land	$ 1,715.00	$ 1,715.00
			$276,234.00

B/ys 6-27
7-20

NOTED
F.B. KLABOE

RECEIVED
JUL 18 1967
FOR FILING

I-405-8(22)304
7310

Salem, Oregon 97310
July 14, 1967

Mr. G. E. Hobbs
Chief Counsel
BUILDING

Attention Mr. Jack Sollis

I enclose a copy of a letter received today from the Bureau of Public Roads concerning our efforts to secure right-of-way for the East Fremont Interchange through the Union Pacific property. As you will note, the Bureau is quite critical of our handling of the matter to date, and I think with some reason.

I would like all of you to analyze the Bureau's statements and be prepared to discuss the entire matter with me on July 18.

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

Enc.

NOTED
R. L. PORTER

cc: F. D. Morgan (Att: Ted Litchfield)
Ivan Merchant
D. M. Moehring

FORM PR-15 (11-65)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: July 13, 1967

In reply refer to: 08-35-EC
XRef: I-405-8(18)303

FROM : T. Dec, Assistant Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(4)303
West and East Fremont Interchanges - Stadium Freeway
Effect Upon Railroad Operations

Some time ago, Mr. Porter raised the question of instituting a Federal condemnation action against the Union Pacific Railroad for highway air rights over the railroad and railroad building acquisition on the subject project. Mr. Rohde again brought up the matter during the recent right of way Phase J inspection. It was contended that if your department were to undertake comparable action under your procedures, it might require several years.

You now have had the Diffenderfer report for approximately two months. In addition, you have your consultants' (Parsons, Brinckerhoff, Quade, and Douglas) study regarding fire hazard clearance and the additional width of the main structure has been approved by our June 30, 1967 memorandum. We realize that there still are questions to be resolved, some of which are pending in this office; however, we cannot understand how a showing can be made that your department proceeded as expeditiously as possible, unless additional efforts are made to update your June 20, 1966 offer to the railroad. Though we understand that the air rights stipulations will be somewhat comparable to those used for the Portland Traction Company on the East Marquam Interchange Section, apparently no attempt has been made to redraft these to meet the conditions and new criteria applicable to the East Fremont Interchange situation.

We find that in attempting to discuss this situation, as well as the SP&S and Portland Terminal railroad problems on this same project, with your representatives, we run the full circle route by being advised that "somebody else is supposed to be handling the matter" due to the fact that both operating and nonoperating property are involved. There seems to be a lack

(more)

7-14-67
REFERRED TO
Litchfield - Mocking - Sallis
BY ASST. STATE HWY. ENGR.
Marchant Young

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

of coordination of efforts on this project and similar situations which would make it difficult for this office to make a favorable recommendation on Federal condemnation unless some improvement in progress is made. Bear in mind that in processing Federal condemnation actions, even though they may be more expeditious, many months still will be required.

As you know, our June 5, 1967 P.S. & E. authorization memorandum regarding the first construction, Project No. I-405-8(18)303, on this underlying right of way project, was issued with the understanding that if you could not obtain a satisfactory agreement with the SP&S Railroad, the project would be withdrawn sufficiently in advance of the letting date so that bids would not be submitted. In our further investigation of this matter we have been unable to determine whether or not proper negotiations with the railroad have been continued. Consequently, action should be taken to immediately withdraw Project I-405-8(18)303 from the letting.

RECEIVED
JUN 13 1967
FOR FILING

I 405-8(22)304
7310

RLL

SP*23057-724

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 12, 1967

SUBJECT: East and West Fremont Interchanges
Stadium Freeway
Multnomah County

To: Mr. Ivan Merchant
Bridge Engineer
Building

Reference is made to the recent meeting in Mr. Edwards' office with representatives of the consultant on subject project.

Six points were brought up by the consultants where revisions in existing street patterns might make their designs more economical, practical, or esthetically preferable. These were forwarded to the Metropolitan Division for their comments and right of way cost estimates where appropriate. Attached are copies of their comments with estimates indicated.

Any street change would need to be approved by the City. I would presume that these suggested street moves would not tend to increase safety or the esthetics from the street level, and would need to be carefully examined and overwhelmingly justified before serious consideration would be given to other than the minor changes in the East Fremont Interchange.

F.D. Morgan
Construction Engineer

NOTED
F.B. KLABOE

By A.D. Olson
A.D. Olson
Urban Engineer

ADO:jr
Enclosure

cc: F.B. Klaboe

RECEIVED
JUN 12 1967
OFFICE OF
STATE HIGHWAY ENGINEER

FORM S-80 REV 8-58 SP*6470-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
June 7, 1967

SUBJECT: East & West Fremont Interchange
Stadium Freeway
Prefix: 26-1973

To: Mr. F. D. Morgan
Construction Engineer
State Highway Building
Salem, Oregon 97310

ATTENTION: Mr. A. D. Olson

As requested by Mr. Olson, I have asked for right-of-way estimates on three locations where our consultants suggest street changes. These are locations numbered 1, 2 and 4 in your letter dated May 11, 1967.

Location No. 1 - N. W. Savier Street
between 17th and 18th Avenues
Estimate = $30,000

Location No. 2 - N. W. Savier Street
between 15th and 16th Avenues
Estimate = $77,000

Location No. 4 - Monroe Street west
of Mississippi Avenue
Estimate = $18,000

Attached are sketches showing the area included in each estimate.

A. E. Johnson
Metropolitan Engineer

By A. V. Benedict

A. V. Benedict
Assistant Metropolitan Engineer

AVB:sh

Enclosures

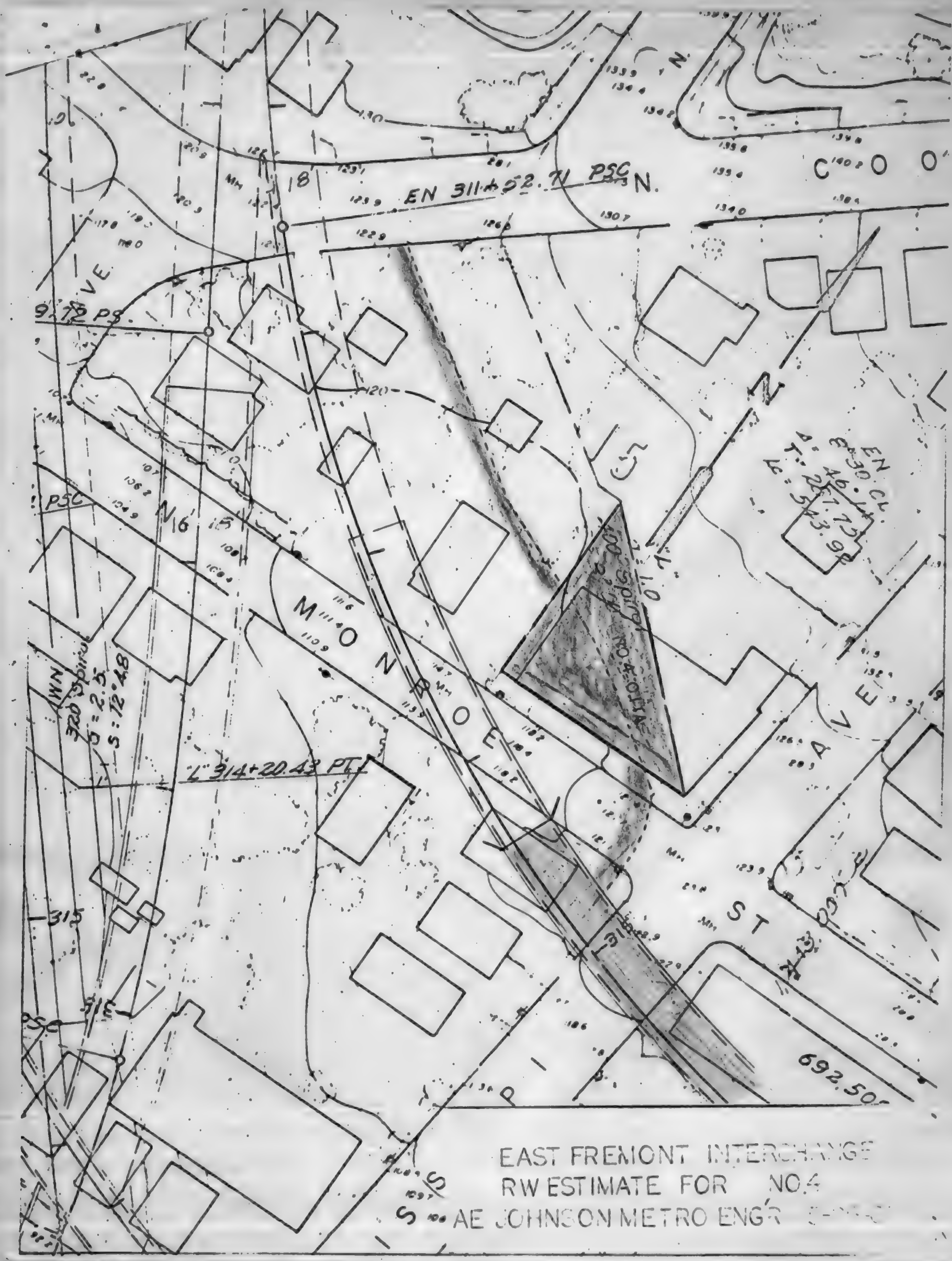
cc J. H. Versteeg

Routing

Morgan
Decker
Bond
Barbee
Walker
Glenn
Swan

Pease
Moreland
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
JUN 8 1967
CONSTRUCTION
DIVISION



EAST FREMONT INTERCHANGE
RW ESTIMATE FOR NO.4
AE JOHNSON METRO ENG'R

FORM S-30 SSM 5-66 SP*6470-754

Routing

Morgan
Decker
Ford
Forbes
Walker
Swan
Poese
Morelock
Trout
Scott
Wills
Litchfield
Olson

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

RECEIVED MAY 22 1967

Portland, Oregon 97213
May 19, 1967

CONSTRUCTION DIVISION

To: Mr. F. D. Morgan
Construction Engineer
State Highway Building
Salem, Oregon 97310

SUBJECT: East and West Fremont Interchanges
Stadium Freeway
Prefix: 26-1973

ATTENTION: Mr. A. D. Olson

Please refer to your letter of May 11, 1967 suggesting several street changes to facilitate placement of bridge columns. We have reviewed these plans and have the following comments on acceptability. Each location will be discussed in the same numerical order used in your letter.

Cost cost refers to street revision work, ADO.

West Fremont:

Item 1 — Moving Savier north between 17th and 19th involves storage for a steel working plant which appears crowded. Reducing their yard space would probably involve heavy damage to the remaining plant.

R/W 30,000
const 15,000
$ 45,000

Item 2 — Moving Savier north between 15th and 16th cuts off the truck back-in space to a loading dock for the Olympic Brewing Company warehouse. The plant probably could not operate without this loading space. Right of way would be very expensive.

R/W 77,000
const 9,000
$ 86,000

Item 3 — Moving 16th Street east from Pettygrove to Savier would probably present no problem. We already own the land and the building will be demolished.

Const. $ 54,000

East Fremont:

Item 4 — We have a commitment to the property owner to keep access open to his loading doors on Monroe Street. See attached letter and sketch. He cannot use Mississippi because of setback requirements. This would involve purchase of access for a cabinet shop, making the building useless.

R/W $ 8,000
No const
$ 18,000

requested R/W estimates on 1, 2 & 4.
5/24/67 ADO.

Brought up 6/7/67
ADO.

Item 5 — Albina cannot be moved very far easterly because of existing columns on the Fremont structure. Columns clear the present curb approximately 10 feet. The City would probably resist closing Albina between Graham and Stanton. Minor $

Item 6 — There should be no problem in moving Graham southerly at Interstate, as we own the right of way. This gets into a high cut and sight distance along Interstate would have to be considered. Minor $

I have checked the utility mpas and no large sewers or water mains would be involved in any of the proposed changes. All street changes would have to be cleared with the City of Portland.

A. E. Johnson
Metropolitan Engineer

By A. V. Benedict

A. V. Benedict
Assistant Metropolitan Engineer

AVB:sh

cc J. H. Versteeg

FORM E-123X DOM 7-66

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. THOMPSON, MEMBER
PORTLAND

RECEIVED
JUN 2 - 1967

FOR FILING

I 405-8(32)304
7310

RH.

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

June 5, 1967

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

Attention: Mr. W. G. Johnson

Re: Test Hole Location
E. Freemont Interchange System
Stadium Freeway
Multnomah County
Project No. I-405-8(4) 303
YOUR FILE: D-9010-32-17

Gentlemen:

Herewith you will find four prints of a portion of our Consulting Engineer's drawing showing the allignment of the interchange ramps and the position of test holes which our Consulting Engineer must dig in order to make a proper footing design for this structure.

These are supplied as requested by your Mr. Tabor on June 2, 1967.

Very truly yours,

F. D. Morgan
Construction Engineer

ORIGINAL SIGNED BY
By: T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

Attachments

cc: Tom Edwards
I. D. Merchant
A. E. Johnson
Jack Hesla

NOTED
TOM EDWARDS

RECEIVED
JUN 6 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 16 1967

SP°23687.724

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 11, 1967

I-4(5)-8(22)304
7310

SUBJECT: East & West Fremont Interchanges
Stadium Freeway

R.L.P.

To:
Mr. A. E. Johnson
Metropolitan Engineer
5821 N.E. Glisan Street
Portland, Oregon

NOTED
F.B. KLABOE

Enclosed are two sets of two prints of the consultant's bridge layout on subject interchanges on which I have noted some questionable areas. Areas, that is, where he has questioned what might be done to existing streets to allow more latitude in his design. No estimate of savings by making these changes has been made, only the suggestion that cost or esthetics might be better if something could be done along these general lines.

Please review these plans and forward your comments and suggestions on the possible cost and acceptability of each area.

On the West Fremont, as noted in red, are three possible street revisions: 1) Moving N. W. Savior notherly between 17th and 19th; 2) Moving Savior north between 15th and 16th; 3) Moving 16th Street east from Pettygrove to Savior.

On the East Fremont Interchange: Item 4) Monroe Street is kept open for some distance by the structure as we have shown it. Could this street be eliminated or narrowed and shorten the structure? 5) Move Albina Avenue east at its intersection with Graham--or close Albina Avenue from Graham to Stanton Street; 6) Relocate Graham Street at its intersection with Interstate Avenue.

Your early review of these items would be appreciated.

F.D. Morgan
Construction Engineer

By
A.D. Olsen
Urban Engineer

ADO:jr
Enclosures

cc: F.B. Klaboe
Ivan Merchant

RECEIVED
MAY 12 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 13 1967

FORM E-80X—50M—2-66 SP°29900-734

FOR FILING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 11, 1967

To: MEMORANDUM TO THE FILE

SUBJECT: East and West Approaches
Fremont Bridge
Brs. Nos. 8958, 9268

On this date, Messrs. Bleistein of the Seattle office of Howard, Needles, Tammen & Bergendoff and Jones of their Kansas City office, were in the office to discuss general items on their engineering contract for the east and west Fremont approaches.

Material as indicated by the attached list, was handed to Mr. Jones for transmittal to Kansas City. They were informed that the grade lines on the East Fremont approach and alignment and grade lines on the west Fremont approach would be complete some time this week, at which time, they will be sent reproducible copies.

Mr. Jones is the foundation engineer for the consultant and desired a meeting with W. C. Hill on the work that had been done and information on the foundation investigation to be made by a consultant of their choice on additional foundation work. Mr. Hill left for Portland with them to go over the project.

Ivan D. Merchant
Bridge Engineer

NOTED
TOM EDWARDS

IDM:mb
cc: Mr. Tom Edwards

RECEIVED
APR 1 1967
OREGON
STATE HIGHWAY DEPT.

7310

Prelim.

DEPARTMENT OF TRANSPORTATION

UNITED STATES COAST GUARD

5187

Address reply to:
COMMANDER (o-4), 13th COAST GUARD DISTRICT
618 SECOND AVENUE
SEATTLE, WASHINGTON 98104

Edwards

3267/534A
6 April 1967
Ser: (166)

Forrest Cooper, State Highway Engineer
State of Oregon Highway Department
Salem, Oregon 97310

Dear Mr. Cooper:

Enclosed is an approved copy of navigation bridge lighting for the Fremont Bridge across the Willamette River at Portland, Oregon. Please advise this office when the bridge has been completed, and the navigation bridge lights are installed and operating.

It is requested that the bridge contractor be made aware of his responsibility for contacting the Coast Guard regarding temporary construction lights and markings, and that this fact be made known in the contract.

Sincerely yours,

Victor Koll
VICTOR KOLL
Commander, U. S. Coast Guard
Chief, Aids to Navigation Branch
By direction of the District Commander

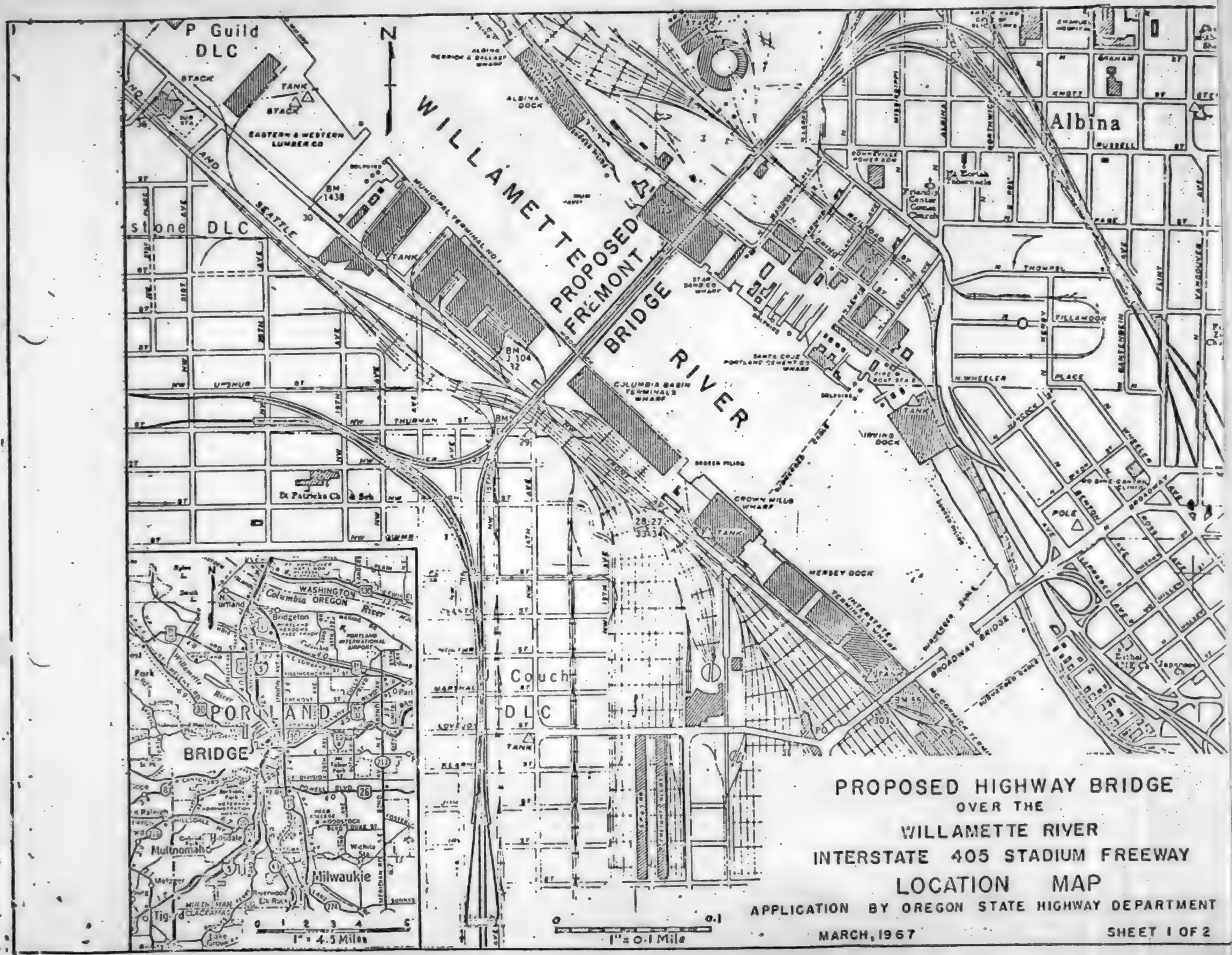
Encl: (1) Approved bridge lighting
(sheets 1 & 2)

Copy Merchant Portland

NOTED
IVAN D. MERCHANT

RECEIVED
APR 7 1967
OFFICE OF
STATE HIGHWAY ENGINEER

Keep Freedom in Your Future With U.S. Savings Bonds



PROPOSED HIGHWAY BRIDGE
OVER THE
WILLAMETTE RIVER
INTERSTATE 405 STADIUM FREEWAY
LOCATION MAP

APPLICATION BY OREGON STATE HIGHWAY DEPARTMENT

MARCH, 1967

SHEET 1 OF 2

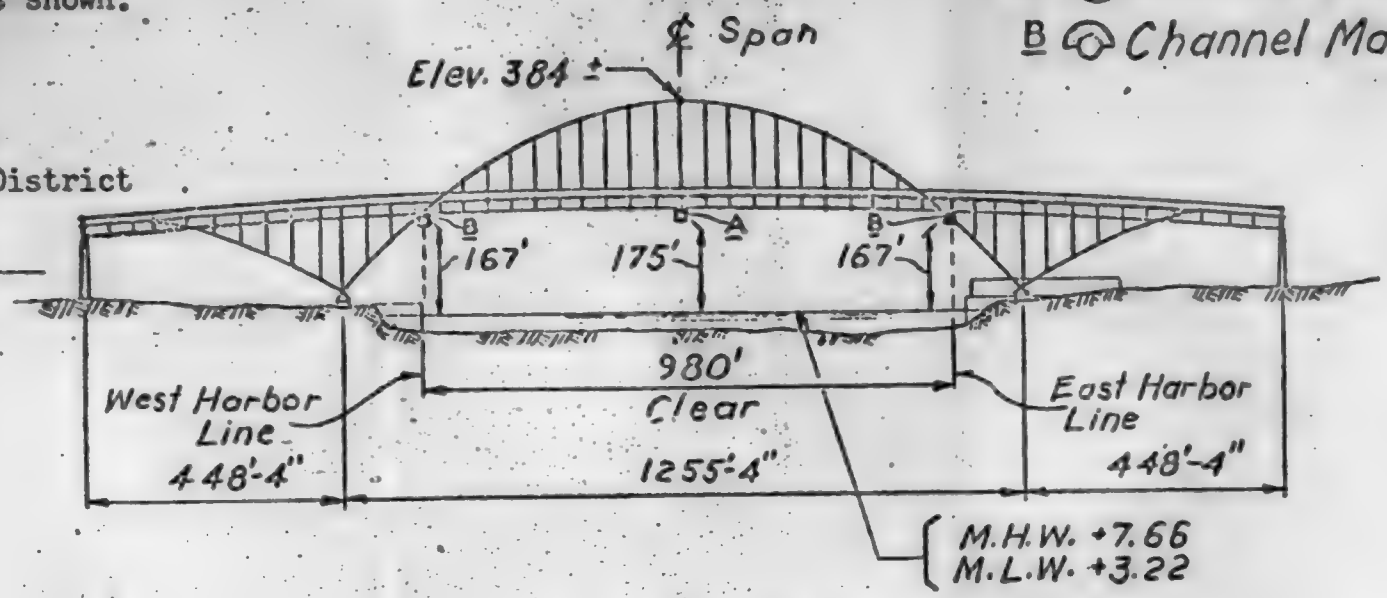
Navigation lights approved as shown.

6 April 1967

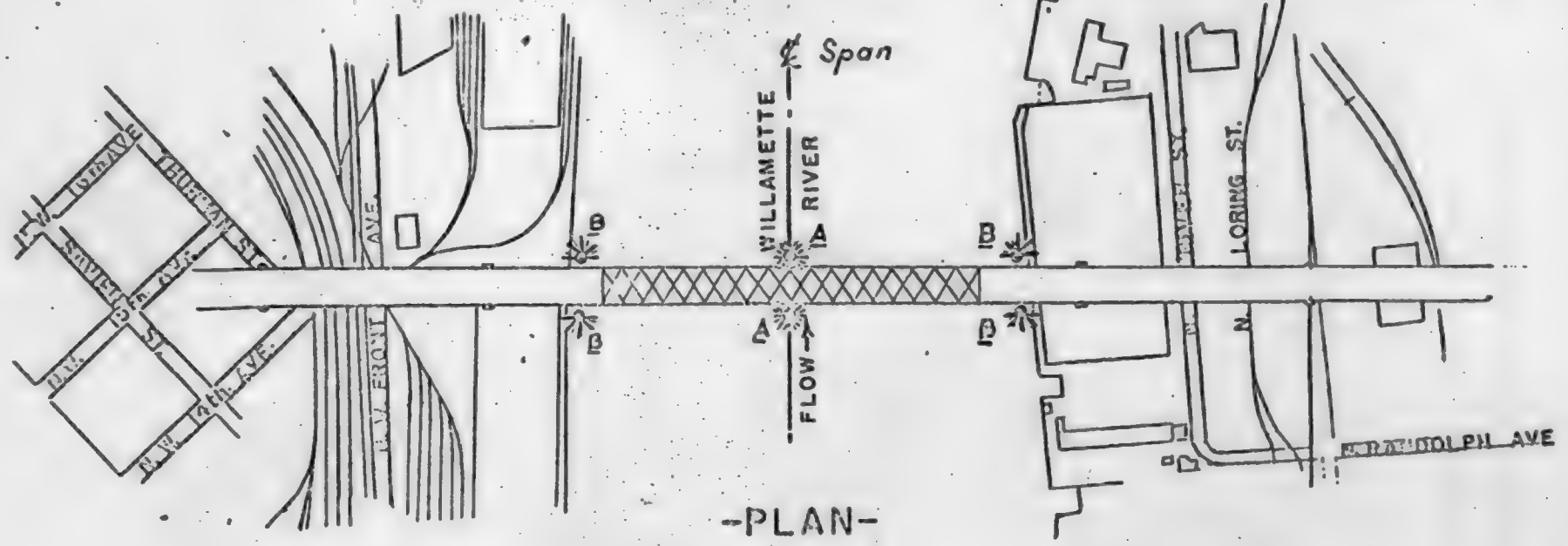
R. D. SCHMIDTMAN, RADM, USCG
Commander, 13th Coast Guard District

VICTOR KOLL, CDR, USCG
By direction

A ◎ Channel Center - 360° Green
B ◎ Channel Margin - 180° Red



-ELEVATION-



-PLAN-

SCALE: IN FEET
0 50 100 200 400

PREPARED BY
PARSONS, BRINCKERHOFF, QUADE & DOUGLAS INC.
ENGINEERS
NEW YORK

PROPOSED HIGHWAY BRIDGE
OVER THE
WILLAMETTE RIVER
INTERSTATE 405 STADIUM FREEWAY.
PLAN & ELEVATION

APPLICATION BY OREGON STATE HIGHWAY DEPARTMENT

MARCH, 1967

SHEET 2 OF 2

RECEIVED
MAR 27 1967
FOR FILING

I-405-8(22)304
7310

RLP.

March 24, 1967

The Honorable Wm. A. Bowes
Commissioner of Public Works
City of Portland
Room 414, City Hall
Portland, Oregon 97204

Dear Commissioner Bowes:

This is in further reference to City and State plans for the East Fremont interchange area on I-405 and I-5 in Portland.

Phase one of your proposal, which consists of ". . . the development of Albina Yard building . . . temporary use of the first floor of Kerby Yard building. The development of the east parking lot and temporary vehicle parking on the roof of the first floor of Kerby Yard . . .", will not conflict with highway construction.

Phase two consists of ". . . the second floor of Kerby Yard building and access roads only, in the area that will ultimately be covered vehicle storage." Our bridge columns will be located in the future vehicle storage area but as yet we do not know exactly where. The grading necessary for the Kerby Yard building will eventually meet our grading for our ramps. Whichever slopes are constructed first will have to meet natural ground.

I understand from our Right of Way people that two propositions have been made to the City; one, for the State to purchase the right-of-way in fee; and the other to obtain air rights only. Either proposition is satisfactory with this Department.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc R. L. Porter
F. B. Kiaboe
Victor D. Wolfe
F. D. Morgan
D. H. Moehring
A. E. Johnson

DNS:jr RLP:ms fn

File

SUPPLEMENT TO FEASIBILITY STUDY

Pursuant to the request of the City Council, we are submitting the following breakdown of estimated costs at various phases of construction, along with a list of facilities to be accommodated at each phase.

Analysis of the operation as it affects the various facilities at each phase of construction dictates a revision in the sequence of accommodating these facilities as well as provisions for parking of cars and vehicles at each phase.

The first consideration must be to replace the facilities lost from Morris Yard. This could be accomplished in Phase One by the development of Albina Yard building and by temporary use of the first floor of Kerby Yard building. The development of the east parking lot and temporary vehicle parking on the roof of the first floor of Kerby Yard would replace the existing parking lot to the north of Stanton Yard.

Phase Two comprises the second floor of Kerby Yard building and access roads only, in the area that will ultimately be covered vehicle storage. The roof of this portion can be used for open storage of vehicles and cars. At completion of Phase Two (1st and 2nd floor of Kerby Yard building plus Albina Yard and Albina annex and the east parking lot), the following facilities will be housed in the new quarters.

Facility	Location	Temporary Use
1. Salvage operation	Albina Annex	
2. Lumber storage	Albina Yard	
3. Sand storage	" "	
4. Cement storage	" "	

RECEIVED
MAR 17 1967
FOR FILING

I-405-8(22)-304
7310
RLL

March 16, 1967

The Honorable Wm. A. Bowes
Commissioner of Public Works
City of Portland
City Hall
Portland, Oregon 97204

Dear Commissioner Bowes:

This is in response to Mr. Fouler's telephone inquiry on March 15. The Department now has verbal Bureau of Public Roads' approval of the East Fremont Interchange as depicted on the drawing dated September 1966. (I understand you have a copy of this drawing.)

The width of the traffic lanes has just been finalized and there will be some adjustments. You will be furnished a map showing these widths when the work has been completed and the map prepared. We anticipate this will be in the reasonably near future.

We do not as yet have a positive location for piers and footings as the design work is being handled by an independent engineering firm; however, if this feature is of importance, we might have some preliminary thinking and anything available can be furnished at your request.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms
srb
cc: Forrest Cooper
F. B. Kinboe
Victor D. Wolfe

RECEIVED
FEB 3 1967
FOR FILING

I-405-1(22)31
7316

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
February 2, 1967

To:

MEMO TO THE FILES

SUBJECT: Meeting with Union Pacific Railroad Officials
Bubbs Ranch-Lime Section
Oxman-Bubbs Ranch Section
Irrigon Jct.-Umatilla Co. Line Section
Old Oregon Trail Highway
Baker and Morrow Counties
Cascade Locks-Mitchell Point Section
Columbia River Highway
East Fremont Interchange Section
Stadium Freeway - Multnomah County

On January 30, 1967 a meeting was held in the office of Mr. F. D. Morgan, Construction Engineer, with representatives of the Union Pacific Railroad Company. Representing the railroad at this meeting were: H. B. Durrant, Division Engineer, A. V. Didier, Assistant Division Engineer, and G. M. Tabor, Assistant Engineer. Representing the State were F. D. Morgan and T. W. Litchfield. John H. Walker was called in with regard to the Oxman-Bubba Ranch Section.

The principle reason for the meeting was to present to the Union Pacific the proposed new alignment and cross sections of the section between Bubbs Ranch and Lime. This has been revised so that our proposed construction will not encroach closer than to the centerline of the railroad tracks than 50 feet. The plan as developed recently was given tacit approval by the railroad. We are now preparing cross sections for their use in a field inspection, which is to be made on February 8, 1967, by Mr. Durrant.

We attempted to get a commitment from them concerning the Lime over-crossing with regard to their new alignment. The indicated that the Omaha office had not replied to their recommendations and questions of early last fall. Their alignment from Lime to Huntington is rather crooked and their proposal for the improvement through the Burnt River Canyon begins at Lime and ends just east of Nelson Point. Their ultimate plan through this area is to connect the two tangents on opposite sides of Lime with a 2-degree curve. This will involve either tunneling beneath or removing entirely the existing lime plant and, therefore, is considered to be nothing more than a vague dream in the distant future.

Their existing alignment around the lime plant begins at the south end of an $8^{o}22'$ curve left, followed by a $5^{o}58'$ curve right and comes back onto a long tangent

with a 6°26' curve left. It is this 6°26' curve left which they have proposed to ease to a 4 degree or possibly a 2 degree curve. They could not tell us what benefit would be realized by the railroad if this curve were eased from its present 6°26' to a 4°, but did say that any slight improvement would assist in train operations. They promised they would again approach their Omaha office and attempt to obtain some kind of a positive answer concerning this particular point. Any railroad revision in this area would be made on the same grade as now exists, so present proposed clearances will be adequate in the future. Any easing of the 6°26' curve would require a longer highway structure, but if the 2 degree alignment were ever built our proposed structure would not be affected.

Our next move in this negotiation is to present our alignment and cross sections to the railroad for their formal approval. We will also proceed with the staking of this new line in the field. When we receive their approval of our preliminary alignment, we will then proceed with the preparation of final plans. We are now proceeding with the revision of right of way widths using the original center line.

With regard to the Oxman-Bubbs Ranch Section and the Pritchard Creek Overcrossing, it was agreed that Mr. Walker and Mr. Durrant would inspect this on February 8 and determine what course of action would be best to follow. It appears their only contention is the reconstruction of the off-track maintenance road, which was not provided for in the PUC Order dated December 18, 1963, but was constructed in 1965 and obliterated by our construction in 1966. We have agreed to reconstruct this road as stated in Mr. Klaboe's letter to the railroad dated February 1, 1967. Messrs. Walker and Durrant will also inspect Nelson Point and the possible location of a railroad shoofly to allow construction of the Bubbs Ranch-Weatherby Section.

With regard to the Irrigon Junction-Umatilla County Line Section, they voiced their objection to our refusal to allow a locked gate access opposite highway Station 613+73, and asked us to reconsider this matter, pointing out the various roundabout routes they would have to take to obtain suitable access to their right of way in this area. We indicated that we would look into the matter, but made no commitments.

With regard to the Cascade Locks-Mitchell Point Section, Mr. Durrant indicated that their pole line crew had constructed their signal and communication lines during wet weather and had muddied the top of the subgrade of railroad relocation "A" to the point that it is not suitable for the installation of ties, ballast and track. It is proposed that this material be shoved off and the subgrade regraded with suitable material from a private source on Herman Creek Road. It is estimated that approximately 3,800 yards of material will be needed. Track work will proceed on February 20, 1967 and it is necessary that this preparation be made prior to that time. We received an estimate of this work on February 1, 1967 amounting to $5,850. Mr. Glen Starkey, our Resident Engineer, met with Mr. Durrant, we have received approval from Mr. Willis Grafe of the Bureau of Public Roads, and the railroad has been authorized to proceed as of February 1, 1967.

With regard to the East Fremont Interchange Section, we inspected the model which is currently set up in A. D. Olson's office and Mr. Durrant stated that the railroad does not like the proposed structure as close as 80 feet to their freight house. He indicated that they were looking for an occupant for this building, and felt that this structure that close to their building would make it undesirable for a future tenant. He felt that if we would pull these ramps in tight against the structure, he would have a better chance of selling that design to their management. I told him that we would look into the situation and see what could be done, but made no commitments in this regard.

ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:sg:fp

cc R. L. Porter
F. B. Klaboe
Tom Edwards
Ivan Merchant
L. H. Young
A. E. Johnson
A. F. Parson
D. H. Moehring
J. W. Valentine
Jack Hesla

OFFICE OF

RECEIVED
SEP 25 1969
COMMISSIONERS
FOR FILING

GLENN L. JACKSON, CHAIRMAN
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

I-405-8(32)304
7310

RLL

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

NOTED
E.B. MABOE

January 23, 1967

Mr. James W. Diffenderfer
115 East Benedict Avenue
Havertown, Pennsylvania 19083

Dear Mr. Diffenderfer:

Re: Easement for Highway Structures
R/W Files 36087 and 37127
East Fremont Interchange Section
Stadium Freeway-Multnomah County
Project No. I-405-8(4)303
UPRR File: D 9010-32-17

With my letter of August 31, 1966, I sent to you the pertinent correspondence pertaining to our negotiations with the Union Pacific Railroad Company on the above-captioned project. Since that time, we have altered the plans as you saw when you were here on November 10, and we have now received a response from the railroad stating their position concerning this plan.

You will find attached the Union Pacific's letters dated December 2, 1966 and January 10, 1967 voicing their objection to our current proposal. Their January 10 letter was written after this had been staked in the field, and they had studied a set of photographs of our model of the interchange as well as plans and profiles submitted previously.

In your letter of October 21, 1966 you asked that we get a copy of the side track agreement between Linde Air Products and the Union Pacific. You will find attached a memo to the files dated October 31, 1966, written by Mr. G.R. Webb, Right of Way Agent, setting forth the terms of the agreement and also the ordnance by which the tracks occupy the portion in the street. Inasmuch as we have purchased the property owned by Linde Air Products (Union Carbide Corporation), and that includes the portion of the railroad tracks lying on their property, this track is now property of the State of Oregon. The portion of the tracks occupying the public street still belongs to the railroad and should be removed at the railroad's expense, in accordance with the City ordnance.

We are obtaining photographs, as you suggest, and also are searching our files to determine an accident experience on similar structures. When you were here, we handed you the traffic count on the Yardman's L and T Building; and now it appears that with this attached information, you now have all you

need to complete your study of this problem. If you need further information, please do not hesitate to contact me.

Very truly yours,

F.D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD
T.W. Litchfield
Utilities Liaison Engineer

TWL:sg

Attachments

cc: R.L. Porter (w/ copy of UPRR letter - January 10, 1967)
~~F.B. Klaboe~~ "
I.D. Merchant "
D.H. Moehring "
A.E. Johnson "
F.B. Crandall " (w/copy of Diffenderfer's letter - Oct. 21, 1966)
D.E. Sturmer "
Jack Hesla "

RECEIVED
JAN 23 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JAN 9 - 1967
FOR FILING

I-405-8(22)304
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1252

January 6, 1967

The Honorable William A. Bowes
Commissioner of Public Works
City of Portland
City Hall
Portland, Oregon

Dear Commissioner Bowes:

Re: East Fremont Interchange, City of Portland

Your letter of December 9 requested copies of the final approved plans for the east approaches to the Fremont Bridge, particularly as they will affect the design of the new buildings and parking areas proposed by the City of Portland.

As discussed at the December 16, 1966, meeting in Mr. Cooper's office between representatives of the City, the architect and State Highway Department personnel, the plans are not final and have not received formal approval by the Bureau of Public Roads. They are believed to be sufficiently accurate for the City to enter the first phase of work on the Korby Yard building since the interchange plan would affect only the adjacent parking lot layout.

adtg in I 1298

We note that the architect's proposed site plan of the Korby Yard, which was supplied to us, indicates the proposed driveway area along the north end of the Korby Yard to be practically coincidental with the edge of the freeway ramp. This is presumably an oversight and will be corrected on the final plans, leaving room for fill slopes and some type of screen.

Enclosed are two sets of our preliminary interchange layout sheets that cover this area. As stated, these are not final and are still subject to change; however, we believe that any change will be minor and would not affect your first phase plans. More detailed information has been supplied to your people by our Metropolitan Engineer.

If further information is needed at this time, please advise.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
Victor D. Wolfe
F. D. Morgan
A. E. Johnson

ADO:jr srb
Encs.

WILLIAM A. BOWES
COMMISSIONER
DEPARTMENT OF PUBLIC WORKS

G. J. LINDSTEDT
CHIEF OF OPERATIONS
NORMAN R. DRULARD, P. E.
CITY ENGINEER

-1535

DEC 12 66

REFERRED TO
Klaver
BY DEPUTY STATE HIGHWAY ENGINEER

CITY OF PORTLAND
OREGON

December 9, 1966

Mr. Forrest Cooper,
State Highway Engineer
Oregon State Highway Department
Salem, Oregon

Dear Mr. Cooper:

The firm of Schmeer & Harrington, architects for the first phase of the remodeling of the Stanton Street Yards for the City of Portland, have requested that the City obtain from the State Highway Department copies of the final approved plans for the east approaches to the Fremont Bridge for the area, which will affect the design of the new buildings and parking areas. These highway plans should be accompanied by a letter stating that the plans have the approval of the Bureau of Public Roads and that the City may proceed with the letting of contracts for the new construction.

Since it is essential that this work be started at an early date so that the City will be able to vacate the portions of the right-of-way which the State must use for the construction of the bridge approaches, your early attention to this matter will be appreciated.

Yours very truly,

Wm. A. Bowes
Commissioner of Public Works

WAB:FTF:DL

cc: C. J. Wendt
N. R. Drulard

Routing
Morgan
Docker
Bond
Barbee
Walker
Glenn
Swan
Pease
Morelock

RECEIVED
DEC 13 1966
CONSTRUCTION
DIVISION

RECEIVED
DEC 12 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 21 1966

Form CD-121 (11-63) (Prep. by A.O. 204-10)

UNITED STATES GOVERNMENT

FOR FILING

Memorandum

Edwards

I-405-8(22)304

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

7310

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

P.L.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

DATE: December 15, 1966

In reply refer to: 08-35-DA

By: G. R. Brooks
District Engineer

SUBJECT: Oregon Project I-405-8(1)301
Stadium Freeway Section (Bridge No. 8958)
Fremont Interchange Portion between Bents 1 and 5R

The tentative location of Bents 1 through 5R, as shown on Drawing 22586, are approved as a basis for your negotiation with the railroad.

NOTED
TOM EDWARDS

Gary Moulton
Yreka
12-20-66

RECEIVED
DEC 19 1966
OFFICE
STATE HIGHWAY

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
DEC 19 1966
FOR FILING

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

I-405-8(22)3L
W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION
7310
P.11

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

DECEMBER 2, 1966

File Ref. D 9010 - 32 - 17

Routing
Morgan
Lorcher
Lund
Larco
Walker
Evel
Foss
Morelock
Scott
Wilk
Litchfield
Sloan
RECEIVED
DEC 1966
CONSTRUCTION
DIVISION
Z

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Reference is made to Oregon State Highway Department's latest plans for constructing the Fremont Bridge and E. Fremont Interchange over and across Union Pacific Railroad Company's Albina Yard as illustrated on prints handed to Railroad representatives on October 27, 1966.

These prints show a newly proposed ramp structure over the Railroad's terminal property next to our Freighthouse and I must advise Union Pacific is very much opposed to such an arrangement. The additional structure would occupy more of the Railroad's property than originally contemplated by the State's transverse overhead highway crossing and would further restrict the Railroad's operations and potential for expansion in the area.

There are increasing demands for use of our terminal property and as a consequence Union Pacific is not in favor of granting easements to the State other than those previously indicated on print supplied with my letter of October 5, 1964, addressed to Mr. Ivan Merchant.

Nevertheless, in line with recent conversation, if you will furnish further data justifying the State's proposed construction, this will be considered.

Yours very truly,

Copies to:
R L Porter
F B Klaboe
I D Merchant
F D Morgan
D H Mohring
A E Johnson
O E Stormer
Jack Hesla

THIS INFORMATION SENT TO UPRR WITH MY LETTER DATED 12-2-66
Z

RECEIVED
DEC 16 1966
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
F. B. KLABOE

FORM S-1282 REV 4-63

RECEIVED
DEC 5 - 1966

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

I-405-8(22)304
7310

R.H.

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

NOTED
R. L. PORTER

December 2, 1966

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W.G. Johnson

Re: Photographs of Model
East Fremont Interchange Section
Stadium Freeway
Multnomah County
Project No. I-405-8(4)303
YOUR FILE: D-9010-32-17

Gentlemen:

Herewith for your information, as recently requested by your Mr. Tabor, you will find four sheets of six photographs each of the model showing the latest revisions of the East Fremont Interchange.

You will also find for your information twelve prints of the "Portland Pig", showing the interstate freeway as constructed and as proposed in the center of the City of Portland.

Mr. Tabor also requested that the revisions by staked in the field, and our field crews are in the process of performing this work. Please bear in mind that the footing sizes which may be shown are approximate and subject to revision upon completion of final design.

Very truly yours,

F.D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD
T.W. Litchfield
Utilities Liaison Engineer

TWL:sg

Attachments
cc: ~~B.L. Porter~~
F.B. Klaboe
I.D. Merchant
D.H. Moehring
A.E. Johnson
D.E. Sturmer
Jack Hesla

RECEIVED
DEC 1966
STATE HIGHWAY ENGINEER

RECEIVED
DEC 5 1966

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

I 405-8(22)304
7310

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

November 29, 1966

Mr. A. W. Parsons
Division Engineer
Bureau of Public Roads
477 Cottage St., N.E.
Salem, Oregon

Attention: Mr. Roy Tokerud

Subject: E. Fremont Interchange
Portion Between Bents 1 & 5R
Stadium Freeway Section
Multnomah County
Br. No. 8958

Gentlemen:

Attached, are 5 prints of Dwg. No. 22586 which shows the plan of the alignment of the subject interchange between the beginning of the Fremont Bridge and a point where the interchange passes over Interstate Avenue just beyond Bent No. 5R. On this plan, we have shown the tentative locations of Bents 1 through 5R. In locating these bents, we have endeavored to keep the number to a minimum and have placed them in positions which would reduce the "air right" damages and provide as much clearance for the tracks as possible. The location of these bents has been made in order that Mr. J. W. Diffenderfer, the Department's consultant on railroad negotiations, can have a firm proposal to negotiate with the railroad.

We are also attaching 5 prints of the 2 geometric drawings which have been submitted for study and on which action is not complete. These are sent to you for orientation purposes.

In our contract with the consultant engineering firm, provision will be made to require the submission of both engineering and architectural studies of various portions of the structure, especially the bents, in order that every effort can be made to obtain a pleasing appearance. They will also be instructed to design all the longitudinal girders curved to match the curvature of the roadway. The above description and prints are submitted to you as a partial preliminary plan for your approval. As none of the above material will be formally transmitted to the railroad or to J. W. Diffenderfer until your approval, we would appreciate your earliest consideration.

NOTED
TOM EDWARDS

On November 9, 1966, this Department tentatively approved the increase in lengths of the 3 spans of the Fremont Bridge, making the main span 1255'4" and the side spans 44'4", thus increasing the total length from 2140' to 2152'. This increase in spans was taken care of by holding the center of the main span in the original position and moving all 4 piers equally, thus making the position of the end piers 6' further from the center line of the main span.

We are attaching 5 copies of letters from Parsons, Brinckerhoff, Quade & Douglas, Inc., which explain and justify this change in span length; also 4 reduced-size prints of their Dwg. No. SK-1 which shows the revised elevation.

Very truly yours,

Ivan D. Merchant
Bridge Engineer

By ORIGINAL SIGNED
T. C. ROAKE
Theo. C. Roake
Assistant Bridge Engineer

TCR:mb
Att.
cc: ~~Jack~~ Edwards
T. W. Litchfield
G. H. Maison
L. H. Young

RECEIVED
NOV 29 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
SEP 14 1966
FOR FILING

I-405-8(22)304
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OREGON STATE HIGHWAY DEPARTMENT

METROPOLITAN ENGINEER

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
September 9, 1966

RECEIVED
SEP - 9 1966

[ ] [ ] [ ] [ ] [ ] [ ]
AME AME MOE MDE MTE

To: MEMO TO THE FILE

SUBJECT: File No. 35712 -
City of Portland
Stanton Yard
East Fremont Interchange
Stadium Freeway

On Thursday, September 8, 1966, a meeting was held in the office of the City Engineer. The following were present: Mr. William Bowes - Commissioner of Public Works, Mr. Norman Drulard - City Engineer, Mr. Bob Smith - City Right of Way Agent, Mr. Gus Lindstedt - Administrative Assistant to Commissioner Bowes, Mr. William Monahan - City Director of Bureau of Design, and Mr. Schmeer - Independent Architect employed by City. The prime announced purpose of the meeting was to establish a basis for proceeding with the up-dating of our appraisals and to determine, if possible, whether or not the City had made any decision regarding selling us a fee to the land we need or an air right easement.

Commissioner Bowes stated that this was the first time the matter of air right easement had been presented to him. After some considerable discussion about easement versus fee and the implementation of the City's plan for a new complex, it was decided that the City could not make any decision until the State presented them with a monetary offer for a fee and a monetary offer for an air right easement. Further, the City will not make a decision until there is also presented to them a concrete proposal for a lease back in the event of a fee as well as the lease arrangement for the other areas under the structure now in State's ownership.

The City's attitude would appear to be quite reasonable. Without a monetary offer there would be no basis on which to proceed with any further negotiations. In view of the fact that the City has a complete feasibility study for a new complex prepared by an independent architectural designer, most of the problems of an engineering nature seem to have been settled.

Our two fee appraisers, Mr. Kolberg and Mr. Draper, are being asked to up-date their appraisals made in 1963. They are also being employed to prepare an appraisal of the value of an air right easement and to document their opinion of the value of the lease back to the City. When these appraisals are completed, further negotiations will be instituted with the City.

copy

REFERRED TO
Barker
BY ASST. STATE HWY. ENGR.
9-14-66

RECEIVED
SEP 13 1966
OFFICE OF
STATE HIGHWAY ENGINEER

J. J. SMITH
DISTRICT RIGHT OF WAY
SUPERVISOR

JJS:jh

cc: D. H. Moehring
G. E. Rohde

Main Copy for C.E. Johnson

RECEIVED
OCT 13 1966

F 405-8(22)304
7310
W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

RLR

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

RAILROAD COMPANIES
FILE No. 603

1825 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

SEPTEMBER 7, 1966

(File Ref. D 9010 - 32 - 17)

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Fremont Bridge and E. Fremont Interchange
Sections - Stadium Freeway - Multnomah County

Attached for the State's record is a fully-executed counterpart of Extension Rider to license agreement No. 27620, Audit No. 101688, in connection with the above-captioned project, extending the termination date to NOVEMBER 25, 1967 in line with request in your letter of May 16.

Very truly yours,

W. G. Johnson

enc.

Routing
Morgan
Docker
Bond
Barbee
Walker
Olson
Swan
Peace
Moralock
Traut
Scott
Wills
Litchfield
Olson
RECEIVED
SEP 8 1966
CONSTRUCTION
DIVISION
NOTED
FLOYD QUERY
NOTED
C. W. HEAD

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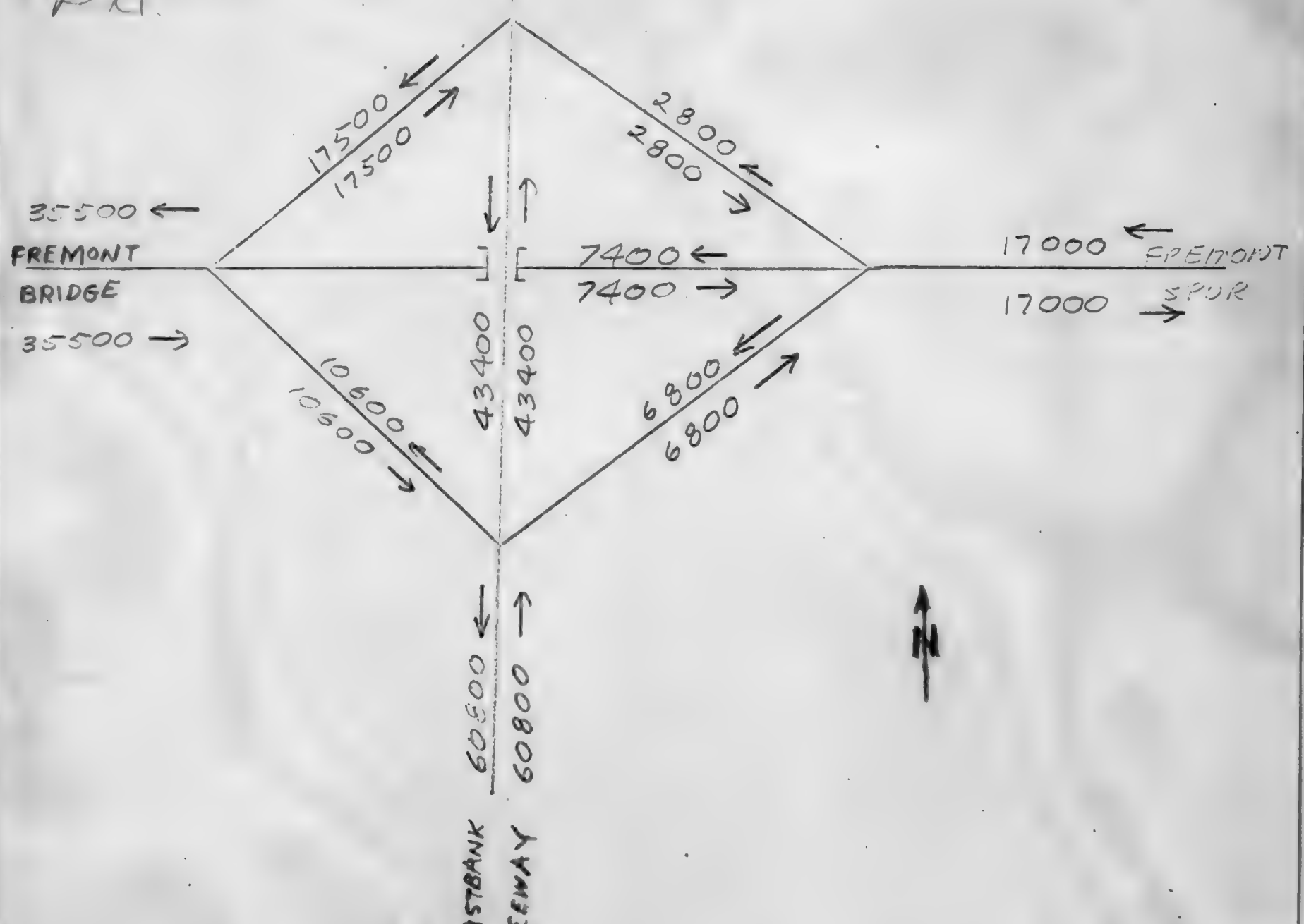
PLI



EAST FREMONT INTERCHANGE

1986 ADT OBTAINED BY FACTORING 1980 ADT UP 15 %

OBTAINED FROM FTS

6-16-66

NOTED
TOM EDWARDS

RECEIVED
SEP 6 - 1966
FOR FILING

96,600
137,000

Limited 5th Test System Unrestricted.

I-405-8(22)304
7310

Limited Ave to

		E.B.	W.B.	Total
RX:1	Holiday - 16th St Ramps	48,800	40,400	89,200
2.	Holiday - 16th St. Ramps to 33rd St.	60,100	55,900	116,000
3.	33rd St. to 37th-39th	52,600	47,700	100,300
4.	42nd St - 58th St.	43,100	40,900	84,000
5.	58th to Halsey @ 82nd St.	35,700	31,500	67,200
6.	82nd to I-205	33,500	19,100	52,600
7.	I-205 to 102nd Ave.	14,700	12,900	27,600
8.	102nd Ave to 122nd Ave.	19,900	15,200	35,100
9.	122nd Ave To 181st Ave	16,500	15,200	31,700

NOTED
TOM EDWARDS

Form E-49—

RECEIVED
SEP 6 - 1966
DESIGNING

OREGON STATE HIGHWAY DEPARTMENT

TABULATION SHEET

SHEET ..... OF ..... SHEETS

PRELIM. PK. HR. COMPUTATIONS FOR EXIT

J-46-8(33)304 PEDDLE INTERCHANGE

7.310

P.M.L.V. ON 25TH AVE WITH A MIT. HOOD FWY MIN

I-205 (96TH)

6-16-66

MOVE		1985 ADT	%	VOLUME	%	VOLUME		
① MINK ESTATE		FREEWAY						
1-2		2800	9	250	11	310		
1-3		43400	11	4770	9	3910		
1-4		17500	11.4	1990	8.7	1510		
TOTAL		63700		7010		5730		
② FREMONT		SOUR						
2-1		2800	11	310	9	250		
2-3		6800	12	820	8	540		
2-4		7400	12	890	8	590		
TOTAL		17000		2020		1380		
③ EAST BANK		FREEWAY						
3-1		43400	9	3910	11	4770		
3-2		6800	8	540	12	820		
3-4		17600	11.8	1250	8.2	970		
TOTAL		68000		5700		6460		
④ EASTBOUND		BRIDGE						
4-1		17500	8.7	1510	11.4	1990		
4-2		7400	8	590	12	890		
4-3		10600	8.2	870	11-8	1250		
TOTAL		35500		2970		4130		

33 PS = 9.2"
1" = 3.6'

9.2" = 33.1'
12.3" = 44.3'

NOTED
TOM EDWARDS

RECEIVED
AUG 26 1966
FOR FILING

Coast
Prog
Metro - Portland

E. Fremont
Interch

Salem, Oregon 97310
August 25, 1966

East Fremont Interchange

Mr. D. J. Barbee
Assistant Construction Engineer
BUILDING

(496

I would like to keep current the acquisition of the City-owned shop area at the East Fremont Interchange.

As you know, the City has made certain proposals concerning this matter and has requested that we consider leasing to them, at no cost, areas within the periphery of the interchange that would be acquired by the State. Further discussion should be held with the City to determine which areas they are interested in and for what use they desire these areas.

I believe that an agreement can be reached on the use of State-owned property by the City. Nevertheless, I would like to have more concrete plans before proceeding further on the actual acquisition.

Please, therefore, reopen discussions of this matter with the City.

F. B. Kinboe
Assistant State Highway Engineer

FBK:erb

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OCT 13 1966
FOR FILING

I-405-8(22)304
7310

P.R.

August 31, 1966

MISC. CONTRACTS and
AGREEMENTS No. 2503

Agenda Item
4l
8-25-66

Mr. Ray Smith
City Auditor
City of Portland
Portland, Oregon

Dear Mr. Smith:

We are enclosing for your records two fully executed copies of a Supplemental Throughway Agreement covering the East Fremont Interchange of the Stadium Freeway Highway (I-405) in Multnomah County.

A fully executed copy of the agreement has been retained for the Commission's files.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

bb
Enclosures

cc: H. S. Cox
Attn: Don Harwell
(Conformed Copy)

RECEIVED
AUG 9 - 1966
FOR FILING

Const
Insp
Maint Planning
E Transit

August 8, 1966

Oregon State Highway Commission

Gentlemen:

Presented for your consideration at the August 25 meeting will be a supplemental throughway agreement with the City of Portland pertaining to the East Fremont Interchange of the Stadium Freeway (I-405) in Portland.

This agreement provides for construction of the throughway interchange, reconstruction of parts of various roads or streets, street closures, parking restrictions, utility relocation, and other pertinent problems relating to the construction of said facility and as referred to in previous agreements of April 1962, November 1964, and April 1965.

Upon completion of the project, the City will assume maintenance, jurisdiction, and control of the various roads and those city street connections that will be reconstructed as part of the project, the reason being that said streets or roads are now under City jurisdiction.

The project is not on the construction schedule at this time but will be added later.

There will be a companion agreement with the City of Portland in regard to traffic signals pertaining to the project.

We recommend your approval and request authority for the Secretary to sign the agreement for and on your behalf.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc: Floyd Quary
R. L. Porter
Tom Edwards
F. B. Kinboe
Victor D. Wolfe
H. S. Cox
F. D. Morgan
Ivan Merchant
L. H. Young
A. E. Johnson

DMHLnr srb

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FOR FILING

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7310

Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

477 Cottage Street NE.
Salem, Oregon 97301

June 17, 1966

08-35.7

A. W. Parsons, Division Engineer
Salem, Oregon

Original signed by
A. W. Parsons
Div. Engineer

Oregon Project I-5-6(23)303
East Fremont Interchange
Leasing to the City of Portland

We have Mr. Kinboe's letter dated May 31, 1966 on the above subject. As you know, Public Roads encourages multiple use of air space when such use is compatible with the highway system. In such cases consideration should be given to the aesthetic treatment of the area. We would give favorable consideration to any proper application presented under PM 21-3-62 or paragraph 3u of PPM 21-4.1.

We would, however, recommend additional study of the interchange at each end of the Fremont structure in view of capacity movements due to weaving and its effect on the structures located in the area. This might possibly present a problem in view of 1966 traffic and the new capacity manual requirements.

In addition we would like information relative to our letter of May 28, 1964. Does the City propose to retain ownership of their present lands, that are not needed for the interchange structures and fills, and which will be left at street level between the interchange structures? Does their request to lease involve areas not under their present ownership? Does the State's acquisition from the City involve a fee taking or air easement? Does the proposal result in any savings to highway funds and what is the State's appraisal to acquire needed right of way from the City?

It would seem appropriate to consider acquiring only an air easement for needed structures particularly since the City desires a long term lease at no rental cost. Under any plan the future needs for such airspace for highway purposes must be fully considered.

Enclosure

cc:
Region
OSHD (Kinboe)
OSHD (Moehring)

RECEIVED
OFFICE OF
STATE HIGHWAY ENGINEER

copies to
Morgan
Litchfield
6-24-66
note: pl see me.

Porter

RECEIVED
JUN 23 1966
FOR FILING

SP*8470-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 3, 1966

NOTED
F. B. KLABOE
NOTED
L. PORTER

E415-A(22)3C4
7310
P21
711

To: Mr. F. B. Klaboe
Assistant State Highway Engineer

BUILDING

L

SUBJECT: (Assignment: FBK-711)
UPRR letter dated May 3, 1966
E. Fremont Interchange Section
Stadium Freeway
Multnomah County

The subject letter was discussed with the Bureau of Public Roads and Right of Way people on May 13, 1966, as related in John Oakes' Memo to the Files of that date, a copy of which is hereto attached. We have drafted a letter which has now been reviewed by Messrs. Barbee, Merchant, Moehring and Dec and could be put in final form at any time.

However, after some discussions on May 31 with Mr. Porter and Mr. Moehring, there is some question in my mind as to precisely the information we should include in this letter, since we may decide to hire this expert employed by the Pennsylvania Railroad to review this situation in the same manner as he reviewed the E. Marquam Interchange situation.

The situation at 5:00 o"clock on May 31, 1966 was that Mr. Porter was going to meet with Mr. Rohde and Mr. McKinney and discuss our proposed action in the case. It is my thinking that we will probably proceed with an application to the Public Utility Commissioner for both the East and West Interchanges. As you know, the placing of a pier at the West end of the bridge will be adjacent to the Spokane, Portland & Seattle Railway Company's tracks near 14th and Thurman. Over a year ago Mr. Moy of the SP&S expressed his disapproval of this particular design and it is my belief that we will have some difficulty in negotiating with the SP&S on this project. Therefore, I feel we should proceed with our application to the PUC at an early date for both the Interchange areas. The orders drawn by the PUC should carry significant weight in our further dealings with all railroads involved in this project.

Until we have decided on a positive course of action; that is, whether to hire this expert from the Pennsylvania Railroad or what other preliminary steps to take, we should not send the letter I have drafted to the Union Pacific Railroad. As soon as a decision is made I will revise the draft accordingly and it will go out immediately.

F. D. Morgan
Construction Engineer

By T. W. Litchfield
T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

Litchfield

FORM S-30 REV 10-63 GPO 834461-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 13, 1966

To: MEMORANDUM TO THE FILE

SUBJECT: File Nos. 36087 & 37127
Union Pacific Railroad
Fremont Interchange-
Marquam Bridge Section
Stadium Freeway
Multnomah County

I attended a meeting in Mr. Barbee's office today at which the following people were present: Ted Dec, Engineering Coordinator; C. J. Mathias, Division Right of Way Officer; G. R. Brooks, District Engineer "A"; and H. A. Schell, Jr., Area Engineer "A"-4 of the Bureau of Public Roads and I. D. Merchant, Bridge Engineer; T. W. Litchfield, Utilities Liaison Engineer; Jack Hesla, Field Utilities Liaison Engineer of the State Highway Department. This meeting was to determine the basis for our negotiation with the Union Pacific on the above files.

Mr. Dec opened the meeting by stating that this was a file that should be handled under PPM 21-41 instead of PPM 30-4, as there was no operating property involved. Linde Air Products has been bought by the State and the spur track serving the company is no longer needed. He suggested that a copy of PPM 21-41 be sent to the Union Pacific Company with the letter Mr. Litchfield is to write outlining the basis for negotiation.

There was general discussion in regard to the possible interruption of work at the warehouse the National Car Loading Company leases from the railroad. Two major possibilities for work interruption apparently exists at this place.

The first possibility involves possible danger from overhead construction during the erection of the bridge. Mr. Merchant believes that one weekend should see the girders in place and that probably this would not constitute an interruption. The danger from falling debris would be minimized by a protective covering of plywood over the building.

Routing

Morgan
Docker
Bond
Barbee
Walker
Glenn
Swan

RECEIVED
MAY 1 3 1966
CONSTRUCTION
DIVISION

Posse
Morelock
Trout
Scott
Wills
Litchfield
Olson

The second interruption would be the necessity to drive piles for the piers in an area that is presently used for trucking. This could be minimized by the National Car Loading Company by intelligent scheduling and storage within the available area. This particular construction also involves the use of part of the building and necessitates destruction of some of the present wall and rebuilding of the building around the pier. It was pointed out by Mr. Mathias that our appraisal does not make any allowance for this reconstruction; consequently, the present offer will be the appraisal amount and the promise that this reconstruction will be done by the contractor.

Mr. Litchfield is to write a letter on the basis of this discussion and the former offers that have been made to the railroad company. If the railroad company refuses to settle on this basis, we are to send them a letter of offer based on an air right easement over the railroad land under the structure and the purchase and razing of the three buildings that are either under the structure or partially under the structure; to be followed in as short a time as possible by a complaint on the same basis. Mr. Litchfield asked me to check if the agreement between Linde Air Products and the Union Pacific Company gave ownership of the trackage on the spur leading to their building to Linde Air Products.

After the meeting, Mr. Mathias requested that the review appraisal on File No. 36087 be corrected on the following points:

1. He stated there are small mathematical errors within the body of the appraisal.

2. The depreciated value of the clubhouse includes the value of the land.

3. The cost to move the clubhouse exceeds the depreciated value and we would need justification to go to the larger figure.

4. Include cost of rebuilding after pier constructed.

John R. Oakes

JOHN R. OAKES
Assistant Right of Way Engineer

JRO:JP

cc: Ted Dec
C. J. Mathias
G. R. Brooks
H. A. Schell
I. D. Merchant
T. W. Litchfield
Jack Hesla
A. Riveness
Carl Smith
J. J. Smith

3

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

DEPARTMENT OF OPERATION

May 3, 1966

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

2525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

File: D 9010 - 32 - 17

Mr. Forrest Cooper,
State Highway Engineer
Oregon State Highway Department
Salem, Oregon 97310

Attn: Mr. F. B. Klaboe,
Asst. State Highway Engineer

copies

REFERRED TO
BPR - Merchant - Porter Edwards
By Asst. State Hwy. Engr.
Litchfield, Barbee, Robe
Johnson, Moehring 5-4-66

Dear Sir:

Please refer to the meeting between Railroad and Highway representatives held on April 14, 1966 in Portland to discuss pending construction of the Fremont Bridge and the E. Fremont Interchange over the Willamette River and Union Pacific Railroad's Albina Yards in Portland.

In line with discussions at the meeting, I wish to reaffirm the Railroad's position that at State expense all existing Railroad buildings must be relocated outside easement areas to be granted the State for construction and maintenance of the bridge and interchange. As a matter of safety the Railroad does not wish to have employees of its own or its tenants' work in buildings under the highway structures during construction; and both our own operations and the business of our tenant, National Carloading, in the buildings located beneath the structure, are of such nature that they cannot be suspended during construction and then resumed. It would be impossible to make provision for our operations or for our tenants' business to be carried on elsewhere during construction and then moved back, except at extremely high cost.

In addition, we do not feel that the National Carloading building, if retained in its present location under the bridge, would be attractive to future tenants. As you are aware, this building is occupied by a forwarding company engaged in a business essential to Railroad operations and it is expected that similar usage of the building will be desired in the future. If it were to be left in its present location, even without considering the limitations placed upon access by the location of piers, the mere existence of the overhead structure with attendant nuisances and potential hazards would impose limitations upon the desirability and usefulness of the building inconsistent with its present use.

NOTED
F. B. KLABOE

Similarly, limitations which would be imposed by the existence of the structure would be inconsistent with continuation beneath it of the operations now being carried on by this company in the affected buildings.

On the other hand, space available to the Railroad in this area which the State has chosen to construct its overhead structures is limited and the Railroad must provide for possible expansion of its facilities in the future. Accordingly, we will insist on retaining the right to rebuild in the easement areas, such facilities and buildings as required by the Railroad in its future operations of a design suitable for locating under the structures and complying with local building and fire codes. Although we cannot now predict the uses to which such future buildings might be put, such uses would necessarily have to be consistent with the limitations imposed by existence of the overhead structure.

Will you therefore please advise if the State is agreeable to the proposals outlined in my letter of October 5, 1964 addressed to Mr. Ivan D. Merchant, Bridge Engineer.

Yours very truly,

W D Johnson

cc: Mr. Ivan D. Merchant,
Bridge Engineer
Oregon State Highway Department
Salem, Oregon 97310

Mr. T. W. Litchfield,
Utilities Liaison Engineer
Oregon State Highway Department
Salem, Oregon 97310

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MAY 2 1966

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MAY 4 1966
OREGON
STATE HIGHWAY COMMISSION

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JUN 1 - 1966

I-405-8(22)304
7310
RLL

May 31, 1966

Mr. Gordon Brooks
District Engineer "A"
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon

Dear Sir:

Re: East Fremont Interchange

As you may know, the City of Portland has requested that the State consider leasing a portion of the property that we will acquire within the access control lines of this interchange to them for their use.

Their request includes several blocks on which they wish to park vehicles and possible construct buildings conforming to the federal regulations for underbuilding interstate freeway facilities. They desire that the State lease this property to them on a long-term basis for no charge.

Please advise if the Bureau of Public Roads would concur in such a lease.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:mrb

cc: Forrest Cooper
R. L. Porter
F. D. Morgan
D. H. Moehring
L. H. Young
A. E. Johnson

RECEIVED
JUN 3 - 1964

I 405-8(12)304

7310

DLM
CO-35.7

477 Cottage Street, N.E.
Salem, Oregon - 97301

May 28, 1964

Mr. Forrest Cooper, State Highway Engr.
Salem, Oregon

Original signed by
A. W. Parsons
Div. Engineer

A. W. Parsons, Division Engineer
Salem, Oregon

Oregon Project I-5-6(28)306
North Portland Blvd. - North Russell Street Section
Parcel 33712

Copy w/ letter & Bar

Please refer to Right-of-Way Engineer Walter T. Wright's letter of May 4, 1964 concerning the possibility of leaving in city ownership certain areas not needed for fills, structures, and restoration of other facilities within the Fremont Interchange area. The possibility of adopting such a plan is of course of an exploratory nature, and would be possible only if the city desired to retain such areas for long-term use. It would seem desirable to prohibit the construction of signs at freeway level or the development of the property for objectionable heavy manufacturing.

If the entire interchange area is obtained with the use of Federal-aid funds any leasing of areas underneath structures or between structures for use of the city would require the Administrator's approval. However, if the areas that lie between the overhead ramps and which are to be served by city streets which will remain open and/or the ramps were not acquired with Federal-aid funds the proposed plan would have to be submitted upon a Regional and Division level. Your review of the suggested plan with recommendation for acceptance or rejection is requested at such time as you can complete your contacts with the City Highway Coordinator.

Orig. to Wright
6-9-64

RECEIVED
MAY 5 - 1964

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
TIMEBERG LING
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

Land
Right of Way
Legal

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

May 4, 1964

Mr. A. E. Parsons
Division Engineer
U. S. Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon

Oregon Project I-5-6(25)303
File No. 35712-City of Portland
North Portland Blvd.-North
Russell Street
Multnomah County

Dear Mr. Parsons:

This letter is in the nature of a progress report and reply to your memorandum of suggestion dated October 31, 1963. The possibility of leaving in city ownership those areas not needed for public use structures, and restoration of other facilities within the interchange area, has been called to the attention of the City Highway Co-ordinator, Mr. Fred Fowler. Metropolitan Engineer Fred Klaboe has pursued this matter by letter, as recently as February 4, 1964, but without response from the city. Obviously, the concurrence of the city would be necessary in order to consummate the proposal.

In the event that the city responds favorably, are you empowered to approve the proposal which you have made to us, or will we be expected to prepare an argument and presentation to be forwarded to your Washington Headquarters for approval?

Very truly yours,

L. I. LINDAS
Chief Counsel

By

Walter T. Wright
Right of Way Engineer

WTW:mk

cc: L. P. Shaw
J. J. Smith
F. B. Klaboe
L. I. Lindas

U.S. BUREAU OF PUBLIC ROADS
RECEIVED
OFFICE OF
STATE HIGHWAY ENGINEER

FORM H-31 9OH 5-60 SP*5470-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213

April 27, 1966

To: MEMO TO THE FILE

SUBJECT: Meeting with City of Portland
East Fremont Interchange

On Tuesday, April 26, a meeting was held in Room 200 of the City Hall Annex to discuss negotiations with the City of Portland for properties for the East Fremont Interchange and areas desired by the City within the interchange complex. Attending the meeting for the City were Messrs. N. R. Drulard, Fred Fowler, D. E. Bergstrom, Carl Wendt and Lloyd Keefe. Attending for the Highway Department were Messrs. F. B. Klaboe, D. J. Barbee, J. J. Smith and A. E. Johnson.

Copies of a plan of the interchange area were presented indicating parcels of right of way which we have already purchased and areas owned by the City of Portland necessary for the interchange. It is apparent that we will be required to negotiate for two full blocks which the City now owns, and Mr. Fowler indicated that in the City relocation plans they would wish to utilize the full block between Stanton and Graham Street and Barthwick and Albina Street. They would also wish the remaining portion of that block between Barthwick and Albina Street and Stanton and Morris Street. The City indicated that they had desired to team up with the State in acquiring property in Block 13, but since we have already purchased that portion required, they will proceed on their own.

Mr. Klaboe advised the City that there was no conflict in areas desired; however, in settling our right of way negotiations we must be in accord with the Bureau of Public Roads. He indicated that he thought negotiations could be conducted so that reflections could be made regarding properties desired by each agency. He proposed that consideration be given to the State acquiring in fee properties within

Bl wp
5/18
5/25

right of way lines, and possibly excess portions could be retained in fee by the City. Alteration of negotiations could be purchase of all areas by the State and leasing back to the City those areas desired by them. The latter method would permit the City to change plans and location at any time desired by simple termination of leases.

Mr. Klaboe indicated that the Highway Department would study the City report on relocation and make appraisals on the various bases of negotiations. He indicated he would be willing to contact the Bureau of Public Roads with regard to leasing properties to the City at token rentals, and if this is not feasible, will attempt to determine and advise the City the approximate cost of leasing back properties to them.

Original Signed by A. E. Johnson

A. E. Johnson
Metropolitan Engineer

AEJ:sh

cc F. B. Klaboe
D. J. Barbee
J. J. Smith
N. R. Drulard
D. E. Bergstrom
Fred Fowler
Carl Wendt

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APR 2 [illegible]
OFFICE
STATE HIGHWAY ENGINEER

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MAY 27 1966
FOR FILING
I-405-8(22)314
7310
RLL.

May 27, 1966

Mr. Ray Smith
Auditor
City of Portland
City Hall
Portland, Oregon

Dear Mr. Smith:

In reference to Mr. Alexander G. Brown's letter of March 8 to Mr. G. E. Robbie, Chief Counsel, regarding the supplemental agreement and pending construction of the East Fremont Interchange, we offer the following information for consideration by the City Council.

We feel the matter pertaining to the use of property under the Fremont Bridge approaches and Minnesota Freeway should not be included as an additional clause in the pending agreement. However, we wish to inform you by this writing that first option to the property under or within the interchange complex shall be offered to the City with use to be as determined and agreeable between City and State, and subject to Bureau of Public Roads' requirements.

The matter of the monetary value to be considered for this property shall be subject to determination at a later date.

We trust this will be satisfactory to the City Council as set forth in the letter of March 8 and will help expedite their action on the pending agreement now in their possession.

Very truly yours,

bcc: Forrest Cooper
R. L. Porter
G. E. Robbie
Victor D. Wolfe
H. S. Cox
F. D. Morgan
D. H. Moehring
L. H. Young
A. E. Johnson

cc: Mr. Alexander G. Brown
Mr. Fred Fowler

Forrest Cooper
State Highway Engineer

By

F. E. Kinbee
Assistant State Highway Engineer

DNH:nr srb

OFFICE OF CITY ATTORNEY
CITY HALL
PORTLAND 4, OREGON
ALEXANDER G. BROWN
CITY ATTORNEY

March 8, 1966

RECEIVED
MAR 9 1966
LEGAL & RIGHT OF WAY

Mr. G. E. Rhode,
Chief Counsel,
Oregon State Highway Department,
Salem, Oregon.

Dear Mr. Rhode:

Out of respect for the flu bug, I am my own stenographer so please pardon any and all typing errors.

On February 17th, the City Council had before it the Supplemental Agreement prepared by the Highway Department and relating to the proposed construction of the east approach to the proposed Fremont Bridge which agreement calls for the closing of certain streets. The public hearing was held on February 17.

According to the minutes of the meeting, it is the desire of the Council that a clause be inserted in the agreement giving the City of Portland first call on the use of such property under the Fremont Bridge approaches and the Minnesota Freeway as the City might find necessary or convenient for the development of the City's shops and maintenance yards, without charge to the City.

Mr. Fowler was directed to send a letter to the Highway Department outlining the City's request for such amendment. At last report, Mr. Fowler had not sent such a letter but advised orally that the Commission agreed to such use and first call by the City, but, as I understand it, the Commission had not expressed itself that this use should be without cost to the City.

The Council wants an expression in writing. I am therefore addressing this letter to you and asking that you obtain the decision and advise me so that this office can proceed.

Very truly yours,
Alexander G. Brown
ALEXANDER G. BROWN
City Attorney

NOTED
F. B. KLABOO

RECEIVED
MAY 20 1966
ENGINEER
COUNTY & CITY DIVISION

NOTED
DON HARWELL

cc: F.B. Klaboo

FORM E-122X 10M 4-66

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

RECEIVED
MAY 18 1966
FOR FILING

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7310
P.L.O.

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

May 16, 1966

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: License Agreement to make Instrument Surveys
Fremont Bridge and E. Fremont Interchange Sections
Stadium Freeway - Multnomah County
YOUR FILE: D 9010 - 32 - 17

Gentlemen:

This is in reply to your letter of April 29, 1966 in which you ask if License Agreement No. 27620, Audit No. 101688, covering instrument surveys at Portland in connection with the proposed Fremont Bridge and East Fremont Interchanges should be extended past the termination date of November 25, 1966.

This is to advise that we would like to have this License Agreement extended until November 25, 1967.

Very truly yours,

F. D. Morgan
Construction Engineer

By
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

NOTED
TOM EDWARDS

TWL:bjm

cc: Tom Edwards (w/copy of UPRR letter)
F. B. Klaboe " "
I. D. Merchant " "
A. E. Johnson " "
Jack Hesla " "

RECEIVED
MAY 17 1966
OFFICE OF
STATE HIGHWAY ENGR

(6)

UNION PACIFIC RAILROAD COMPANY

TRANSPORTATION DIVISION

DEPARTMENT OF OPERATION

W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION

5525 NO. LARRABEE AVE.
PORTLAND, OREGON 97227

APRIL 29, 1966

File Ref. D 9010 - 32 - 17

Mr. F. D. Morgan,
Construction Engineer
Oregon State Highway Department
Salem, Oregon 97310

Atten: Mr. T. W. Litchfield,
Utilities Liaison Engineer

Dear Sir:

Wish to advise that License Agreement in favor of the State of Oregon, our Dept. No. 27620, Audit No. 101688, covering instrument surveys at Portland in connection with the proposed Fremont Bridge and E. Fremont Interchange, will terminate NOVEMBER 25, 1966.

Will you kindly advise if the State desires to have the terms of the license extended and, if so, for how long.

Yours very truly,

W D Johnson

Routing

Morgan	Poore E
Docker	Morelock
Bond	Trout
Barbee	Scott
Walker	Wills
Glenn	Litchfield
Swan	Olson

RECEIVED
MAY 2 1966
CONSTRUCTION
DIVISION

RECEIVED
MAY 6 - 1966

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7310
W. G. JOHNSON
SUPERINTENDENT
OREGON DIVISION
RLL

NOTED
R. L PORTER

UNION PACIFIC RAILROAD COMPANY
TRANSPORTATION DIVISION
DEPARTMENT OF OPERATION

May 3, 1966

2323 NE. LARRABEE AVE.
PORTLAND, OREGON 97227

File: D 9010 - 32 - 17 Copy in 4298

Mr. Forrest Cooper,
State Highway Engineer
Oregon State Highway Department
Salem, Oregon 97310

Attn: Mr. F. B. Klaboe,
Asst. State Highway Engineer

copies
REFERRED TO
BPR - Merchant - Porter ✓
By Asst. State Hwy. Engr.
Litchfield, Barbee, Roble
Johnson, Moehring 5-4-66

Dear Sir:

Please refer to the meeting between Railroad and Highway representatives held on April 14, 1966 in Portland to discuss pending construction of the Fremont Bridge and the E. Fremont Interchange over the Willamette River and Union Pacific Railroad's Albina Yards in Portland.

In line with discussions at the meeting, I wish to reaffirm the Railroad's position that at State expense all existing Railroad buildings must be relocated outside easement areas to be granted the State for construction and maintenance of the bridge and interchange. As a matter of safety the Railroad does not wish to have employees of its own or its tenants' work in buildings under the highway structures during construction; and both our own operations and the business of our tenant, National Carloading, in the buildings located beneath the structure, are of such nature that they cannot be suspended during construction and then resumed. It would be impossible to make provision for our operations or for our tenants' business to be carried on elsewhere during construction and then moved back, except at extremely high cost.

In addition, we do not feel that the National Carloading building, if retained in its present location under the bridge, would be attractive to future tenants. As you are aware, this building is occupied by a forwarding company engaged in a business essential to Railroad operations and it is expected that similar usage of the building will be desired in the future. If it were to be left in its present location, even without considering the limitations placed upon access by the location of piers, the mere existence of the overhead structure with attendant nuisances and potential hazards would impose limitations upon the desirability and usefulness of the building inconsistent with its present use.

NOTED
E. E. Wallace

Similarly, limitations which would be imposed by the existence of the structure would be inconsistent with continuation beneath it of the operations now being carried on by this company in the affected buildings.

On the other hand, space available to the Railroad in this area which the State has chosen to construct its overhead structures is limited and the Railroad must provide for possible expansion of its facilities in the future. Accordingly, we will insist on retaining the right to rebuild in the easement areas, such facilities and buildings as required by the Railroad in its future operations of a design suitable for locating under the structures and complying with local building and fire codes. Although we cannot now predict the uses to which such future buildings might be put, such uses would necessarily have to be consistent with the limitations imposed by existence of the overhead structure.

Will you therefore please advise if the State is agreeable to the proposals outlined in my letter of October 5, 1964 addressed to Mr. Ivan D. Merchant, Bridge Engineer.

Yours very truly,

W. D. Johnson

cc: Mr. Ivan D. Merchant,
Bridge Engineer
Oregon State Highway Department
Salem, Oregon 97310

Mr. T. W. Litchfield,
Utilities Liaison Engineer
Oregon State Highway Department
Salem, Oregon 97310

RECEIVED
MAY 1 1966

RECEIVED
MAY 4 1966
OREGON
STATE HIGHWAY COMMISSION

FORM D-1202 ISSUE 4-62
RECEIVED
MAY 1 1966
COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND
I-405-8(22)314
7310
R/W

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

NOTED
F. B. KLABOE

April 29, 1966

Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

ATTENTION: Mr. W. G. Johnson

Re: Easement for Highway Structure
R/W Files 36087 and 37127
East Fremont Interchange
Stadium Freeway
Multnomah County
YOUR FILE: D 9010 - 32 - 17

Gentlemen:

At our meeting of April 14, 1966, we discussed the terms contained in your letter of October 5, 1964 concerning this subject.

Condition (1) of your letter agreed to grant easements to the State to a line 25 feet outside the structure with certain reservations. Reservation (a) was that all railroad buildings are to be relocated outside the easement line at State's expense. Reservation (b) was that railroad will retain the right to build and occupy future buildings in the easement area in accordance with the State and local fire buildings codes, except that no building will be constructed closer to the bridge in an easement area above a plain parallel to and 8 feet below the underside of the structure.

As brought out in our meeting of April 14, we felt these requests somewhat inconsistent, but you pointed out that the type of buildings which would be reconstructed within the easement area would be of a type other than those which now occupy these areas. In order for us to make a proper presentation to the Bureau of Public Roads, we must have from you a complete explanation of your proposed use of the area beneath the structure so that it can be shown that your requests as outlined in your October 5 letter are justified.

It was also mentioned in our meeting of April 14 that you would like to see our appraisal of the damage to your property. We have had our appraisals reviewed for the air easement over your property. This appraisal includes the moving of the clubhouse, fire proofing the National Carloading and Yardmen's buildings, damages to the National Carloading Building caused by the construction of a column in its east wall, and the damages to the six parcels of land included in our Files 36087 and 37127. We are willing to recommend to the Highway

#1298

Commission that the sum of $55,885 be paid as consideration. If this is acceptable to you the disposition of the buildings will be the railroad's responsibility. In addition to the consideration above stated, the railroad will retain the right to use the area beneath the structure in any manner so long as it is consistent with our use of the property.

As agreed in our conference on April 14, the State will assist you in obtaining vacation of North Brendle, Knott and Russell Avenues and the alley lying midway between Larrabee and Brendle Avenues and extending from Knott to Russell Street.

Herewith for your use you will find four (4) prints of a portion of our right of way map 1A-16-22 which shows the right of way we intend to acquire across your property. You will also find enclosed the description of easement for our Files 36087 and 37127 for your use.

Please review the information contained herewith and our above-stated proposal for settlement and advise at your earliest convenience, since it is our desire to accelerate the negotiation for this property. It is our intention to open bids for this project in the middle of 1967.

Very truly yours,

F. D. Morgan
Construction Engineer

By

T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

cc: A. W. Parsons

R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

RECEIVED
MAY 3 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 26 1966
FORM E-30 BOM 8-65 SP*6470-784
FOR FILING

I-405-8(22)32 4/
7310

P&L

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
April 22, 1966

To: MEMO TO THE FILES

SUBJECT: East Fremont Interchange
Stadium Freeway - Multnomah County

copy to 1.7298

L

On April 14, 1966 a meeting was held in the Conference Room of the Superintendent's office of the Union Pacific Railroad in the Pittock Block to discuss the East Fremont Interchange and its effect on Union Pacific property. Representing the railroad were R. E. Haacke, District Engineer, H. B. Durrant, Division Engineer, A. V. Didier, Assistant Division Engineer, G. M. Tabor, Assistant Engineer, L. A. Fisher, General Industrial Agent, L. T. Monaco, Land and Tax Agent, J. A. Reuling, Jr., General Attorney. Representing the State were F. B. Klaboe, Assistant State Highway Engineer, A. E. Johnson, Metropolitan Engineer, Ivan D. Merchant, Bridge Engineer, D. J. Barbee, Assistant Construction Engineer, D. H. Moehring, Right of Way Engineer, T. W. Litchfield, Utilities Liaison Engineer, Jack Hesla, Field Utilities Liaison Engineer.

At this meeting we discussed the contents of the railroad's letter of October 5, 1964, in which they listed four major conditions under which they would allow the State to occupy railroad property for the proposed construction of the Fremont Bridge and the East Fremont Interchange ramps.

NOTED
F.B. KLABOE

Conditions 1 and 2 of the railroad's letter of October 5 state that all the railroad buildings are to be relocated outside the proposed easement area the State wishes to acquire, and also that the railroad will retain the right to build and occupy future buildings in the easement areas. We stated it would be somewhat inconsistent to move the buildings out and then give the railroad the right to rebuild beneath the structure. The railroad insisted that they did not like to have their buildings under the structures at all since they were afraid of pidgeon droppings and material which may be thrown from the bridge landing on top of the buildings. They also indicated that the property was now industrial and occupied by a lessee. In their opinion, if it were overbuilt by a structure the property would be less desirable to a future tenant. They pointed out that the buildings they

intended to construct beneath the structure would be buildings for operatinn of the railroad and would not be inconsistent with our use of the area.

The buildings involved are the National Carloading Warehouse, which lies at the northwest corner of the intersection of Interstate Avenue and Knott Street; the Union Pacific Club House, which lies on the west side of Larrabee Avenue between Knott and Russell Streets, and the Yardmen's locker and toilet building, which is located on the north side of Russell Street on the west side of the alley between Larrabee and Brendle Avenues.

Our approach was that all these buildings should remain in place except the Club House. The structure should be built over them and the State would compensate the railroad for its damages. This would involve building a column inside the easterly wall of the National Carloading Warehouse, fireproofing this building, moving the UP Club House, and fireproofing the Yardmen's locker and toilet building. The railroad insisted this would be unacceptable to them and that they would accept only a move such as they have detailed in their letter of October 5, 1964.

We also discussed the retaining wall (mentioned as item 2C(3) of their letter) the railroad requests us to build along Interstate Avenue for a distance of 500 feet. It is our opinion that this retaining wall is definitely a betterment. We could see no obligation to carry this retaining wall any farther to the south than the area now occupied by the National Carloading platform, since no wall exists there now and the railroad's operation proceeds satisfactorily. We did agree the State may be obligated to construct a wall northerly of this point for a distance of approximately 200 feet. The railroad brought out, however, that much of the remaining 300 feet of wall would be quite low and little more than a curb.

Item 2d of the railroad's letter of October 5, 1964 provided that the State fireproof the Republic Carloading Company, the railroad's Division Headquarters and the railroad's Maintenance of Way Office. The closest corner of any of these buildings is 33 feet from the south edge of our bridge (horizontal measurement). The farthest corner is 245 feet from the south edge of the bridge. We stated that according to the Fire Marshal it would not be necessary to fireproof any of these three buildings. The railroad brought out that they have their own set of safety rules and in their view fireproofing would be necessary. They also indicated that they want the same treatment as would be required by the State if the railroad were constructing a building after the bridge had been completed.

Item 3 of the railroad's letter requests the State to convey the property to the railroad occupied by the Linde Air Products Company and the Mecca Restaurant. The railroad would then grant the State an easement for the structure. We pointed out that we did not own all of the Linde Air Products Company property and that the triangular shaped remainder in the northwest corner of this property still was owned by Linde Air Products. Mr. Klaboe pointed out that it may be possible to convey the fee title to this right of way to the railroad, but that it would have to be cleared with the Bureau of Public Roads. The railroad feels that all property in this area should have the same fee ownership and that the State should have the same easement right throughout the entire area. It was agreed that the conveyance of this property would be reflected in the final settlement between the State and the railroad. The railroad brought out that they expect an increase in business in this area due to their trailer operation and the railroad wanted to be able to provide for this anticipated expansion. They also wanted our damage figures to compare with their assessment of this damage. Mr. Moehring had the appraisals in hand, but the figures were never divulged.

The subject of betterment was discussed. The railroad made quite a point of the fact that they had argued this many times with the Corps of Engineers and won every time. That each time any of their facilities were rebuilt because of the Corps' work their function had been restored without any credit for extended service life. They felt assured that they could provide us with adequate information to convince the Bureau of Public Roads the railroad's position is sound. It is their opinion that the function of their facilities should be restored without any credit for extended service life. We discussed moving the buildings, and it was generally assumed that this, with the exception of the UP Club House, would be unsatisfactory and probably cost more than rebuilding in a new location. It was agreed that the Union Pacific Club House building could be moved for approximately the same cost as its value.

The railroad also brought up the hazard existing from men working beneath the structure during construction. It might be brought out here that when the beams were placed over the PGE garage on the East Marquam Interchange on April 13 and 14, 1966 that our Resident Engineer, Bob Shotwell, requested that all PGE personnel be evacuated from that end of the garage building.

We promised to gather our figures together and present themto the railroad at a future date. We pointed out that it may be possible to relocate with the buildings under PPM 30-3 as operating railroad facilities. If this were done railroad indicated that they might be agreeable to letting the contract to reconstruct the buildings.

Item 3b of the railroad's letter of October 5, 1964 asks the State to assist in the vacation of certain streets in this area. It was brought out that the railroad had

originally petitioned for the vacation of these streets, and that the State had requested the City to not act on this vacation until the Fremont Bridge problems had been settled. We agreed that we would assist in the vacation of these streets, but that we must reserve access for maintenance of the bridge after its construction.

We came to no positive conclusions except that we would assemble our damage figures and present them to the railroad for their review and comparison with their own damage figures. We also indicated we would reply to the railroad's letter of October 5, 1964 and ask for clarification of their request that in addition to relocating the buildings, the State grant the railroad the right to rebuild beneath the structure.

ORIGINAL SIGNED BY
T. W. LITCHFIELD
T. W. Litchfield
Utilities Liaison Engineer

TWL:bjm

cc: R. L. Porter
F. B. Klaboe
I. D. Merchant
L. H. Young
D. H. Moehring
A. E. Johnson
Jack Hesla
J. J. Smith
Carl Smith

RECEIVED
APR 25 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAR 28 1966
FOR Filing

I 405-1(22)5C4
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

March 23, 1966
Salem, Oregon

RECEIVED
MAR 23 1966
LEGAL & RIGHT OF WAY

To: Mr. C. H. Matson
Controller
Accounting Division
B U I L D I N G

SUBJECT: Demolition Contract -
Clearing Blocks 2, 6, 7, 10
11 & 15, Prosbstels Addition,
East Fremont Interchange
Pacific Highway
Multnomah County

We are attaching a bill from Don H. Pearson, Jr. for the demolition contract authorized by the State Highway Commission at the January 25, 1966 meeting. Also attached is the Wage Certification. This contract has been completed.

W. H. HASKIN
Property Manager

jls
Attach.
cc: Mr. Floyd Query
Mr. H. V. Jackson

NOTED
FLOYD QUERY

RECEIVED
FEB 10 1966

FOR FILING

Land
Projects
Misc. Portland

To: Mr. Floyd Query
Secretary
State Highway Commission
BUILDING

E Fremont
Int.

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
February 9, 1966

SUBJECT: Demolition Contract -
Clearing Blocks 2, 6, 7, 10
11 & 15, Proebstel's Addition,
East Fremont Interchange
Pacific Highway
Multnomah County

On January 25, 1966 the Oregon State Highway Commission awarded the demolition contract to Don H. Pearson, Jr. for the low bid of $7,495.50. This authority is set forth in Volume 50, Minute Book of the Oregon State Highway Commission.

We are attaching hereto the original copies of the contract and performance bond to be held in your office file until completion of the project. This work is to be completed by March 23, 1966.

W. H. Haskin

W. H. HASKIN
Property Manager

jlc
Attach. - 2
cc: H. V. Jackson

NOTED
FLOYD QUERY

CAA:sp
12-27-65

Part G

CLEARING BLOCKS 2, 6, 7, 10, 11, & 15, PROEBSTEL'S ADDITION, PORTLAND, OREGON

CONTRACT

THIS AGREEMENT, made this 25th day of January, 1966, by and between the State of Oregon, acting by and through its State Highway Commission, hereinafter called "State," and Don H. Pearson, Jr., hereinafter called "Contractor."

W I T N E S S E T H:

That the Contractor, in consideration of the sums to be paid to him by the State, in the manner and at the times hereinafter provided, and of the other covenants and agreements herein contained, hereby agrees, for himself, his heirs, administrators, successors and assigns, to construct and complete the work herein described, furnishing the necessary machinery, tools, apparatus, materials and labor and doing all things in accordance with the Instructions to Bidders, General Provisions, and Special Provisions, which are hereby specifically referred to and made a part of this contract and have the same force and effect as though all the same were fully inserted herein.

The State shall pay the Contractor for the performance of the contract, subject to conditions provided herein, the sum of Seven Thousand, Four Hundred Ninety-Five Dollars and Fifty Cents DOLLARS ($ 7,495.50), such payment to be made in the manner and at the times provided in the General provisions hereto appended.

IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their seals as of the day and year first above written.

This contract was approved by the Oregon State Highway Commission on January 25, 1966, at which time the Secretary for the Commission was authorized

CAA:sp
12-27-65

and directed to sign said contract for and on behalf of the Commission. Said authority is set forth in Volume 50, Page _____, Minute Book of the Oregon State Highway Commission.

Floyd Quenzy
Secretary

APPROVED

M K Lahsee
Asst. State Highway Engineer

APPROVED AS TO FORM:

G E Rohde
Chief Counsel

ATTEST:

W H Hawkins

CONTRACTOR:

By Don N. Pearson Jr.

CAA:sp
12-27-65

Part F

CLEARING BLOCKS 2, 6, 7, 10, 11,
& 15, PROEBSTEL'S ADDITION,
PORTLAND, OREGON

PERFORMANCE BOND

(Demolition Contract)

KNOW ALL MEN BY THESE PRESENTS:

That we, DON H. PEARSON, JR.,

as principal, and UNITED STATES FIDELITY AND GUARANTY COMPANY,

a corporation dully organized and existing under and by virtue of the laws of the State of Maryland and duly authorized to transact the business of surety in the State of Oregon, as surety, are jointly and severally held and bound unto the State of Oregon, by and through its State Highway Commission, in the sum of

SEVEN THOUSAND FOUR HUNDRED NINETY FIVE &50/100 DOLLARS ($ 7,495.50),

for the payment of which we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT,

WHEREAS, the principal herein has made and entered into a certain contract with the State of Oregon, by and through its State Highway Commission, a copy of which contract is hereto annexed and made a part hereof, under which contract the principal agrees to furnish certain materials and to perform certain work consisting of the demolition and removal of buildings located on and clearing of Blocks 2, 6, 7, 10, 11, & 15, Proebstel's Addition, Portland, Oregon

;

NOW, THEREFORE, if the principal herein shall faithfully and truly observe and comply with the terms of such contract and shall well and truly perform all matters and things by him undertaken to be performed under said contract upon the terms proposed therein and shall do all things required of said principal by the laws of this state and shall indemnify and save harmless the State of Oregon, the State Highway Commission, and members thereof, its officers, employees and agents, against any direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the said contract by the contractor or subcontractors, then this obligation is to be void, otherwise, to remain in full force and effect.

CAA:sp
12-27-65

In no event shall the obligations under this bond be terminated without written consent of the State of Oregon, by and through its State Highway Commission.

Signed and sealed this 9th day of February, 1966.

PRINCIPAL Don A. Pearson Jr.

BY Owner
(Official Capacity)

Attest: _____
Secretary

SURETY UNITED STATES FIDELITY AND GUARANTY COMPANY

By _____
Robert E. McGibbon — Attorney-in-fact

Countersigned:

_____
Paul Nolan — Resident Agent

APPROVED AS TO AUTHORITY OF ATTORNEY-IN-FACT AND RESIDENT AGENT FOR THE SURETY COMPANY.
STATE INSURANCE DEPARTMENT
BY _____
Insurance Commissioner

APPROVED
_____
Chief Counsel

RECEIVED
FEB 18 1966

FOR FILING

I-405-8(22)304
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
February 17, 1966

To: Mr. F. B. Klaboe
Assistant State Highway Engineer
Building

SUBJECT: City of Portland Property
East Fremont Interchange
Stadium Freeway

Reference is made to your letter of January 31 in regard to the City property in the East Fremont Interchange.

Mr. Johnson has had several contacts with Mr. Drulard in regard to the City's plans which apparently are still in the formative stage. I was advised today that Mr. Johnson will recommend that we start formal negotiation with the City on the plan and right of way presently set up in order to get this off the ground.

The main interest of the City is to get paid for the property so that they can start building a replacement. They hope to stay in their present location, rent free, while reconstructing. The latest interpretation of Bureau of Public Roads policy is that 90 days after payment of the money would be the most that could be expected. Whether this would be subject to review is not known.

By letter of February 15 (copy attached), Mr. Johnson stated basically the foregoing statements and recommends starting negotiations at this time. John Oakes of Right of Way advises that negotiations have been started.

F. D. Morgan
Construction Engineer

By A. D. Olson
A. D. Olson
Urban Engineer

ADO:jp
Attach

cc: A. E. Johnson
John Oakes

NOTED
F. B. KLABOE

RECEIVED
FEB 17 1966
OFFICE OF
STATE HIGHWAY ENGINEER

FORM E-30 50M 3-65 SP*6470-734

Routing

Date C

Moreland

Trout

Scott

Wills

Litchfield

Olson

OREGON STATE HIGHWAY DEPARTMENT

RECEIVED
FEB 16 1966
CONSTRUCTION
SURVEY

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
February 15, 1966

SUBJECT: Right of Way Negotiations
with the City of Portland
East Fremont Interchange Area
Stadium Freeway

To: Mr. F. D. Morgan
Construction Engineer
State Highway Building
Salem, Oregon 97310

For some time we have been negotiating with the City of Portland relative to their needs in the East Fremont Interchange area. The City has been conducting a study of their relocation needs, having employed a firm of architects to make this study, and have also been making a study of other needs, such as fire stations, et cetera.

During December, Mr. Norman Drulard, City Engineer, indicated that it was the City's thought that negotiations proceed at this time with the City for properties in question and permit the City to occupy the properties until such time as we would require their use. He would then propose to renegotiate for the properties the City would desire to be retained for their use. This was obviously a means of financing their moves with our monies.

Recently, I advised Mr. Drulard that the State was in a position to negotiate with them for properties at any time, but that the Bureau of Public Roads had indicated that they would consider a 90 day period a maximum time after payment had been made until rent for properties would be collectible.

On Tuesday, February 8, Mr. Drulard indicated that the City was fairly firm in their plans for the Stanton Street-Morris Street Yards and their relocations, but that they had not released any information on it, but agreed that if negotiations would take any time at all, it would be well to start negotiations at this time.

RETURNED TO

Van Dee

By Construction Engineer

John Caicedo

It is therefore recommended that our Right of Way Department proceed with negotiations for property owned by the City of Portland in the East Fremont Interchange area.

A. E. Johnson
Metropolitan Engineer

AEJ:sh

cc Mr. F. B. Klaboe
Mr. D. H. Moehring
Mr. J. J. Smith

RECEIVED
MAR 29 1966
Forrest Cooper

I-405-8(3)301
7320

Form CD-121 (11-63) (Prep. by A.O. 206-10)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
477 Cottage Street NE.
Salem, Oregon 97301

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

DATE: January 21, 1966

In reply refer to: 08-35-DA

FROM : A. W. Parsons, Division Engineer
Salem, Oregon

By: T. Dec
Engineering Coordinator

SUBJECT: Oregon Project I-405-8(1)301
East and West Fremont Interchange Areas
Railroad Agreements

A cursory review of the subject project indicates that there are five parcels of railroad property owned by Oregon - Washington Railroad Navigation Company in the East Fremont area (Right of Way File No. 36087) and two parcels owned by the Southern Pacific Company (Right of Way File 35105) and two parcels owned by the Northern Pacific Railroad (Right of Way File No. 35106) in the West Fremont area which will require a railroad agreement prior to P.S. & E. approval. In view of the very difficult negotiations encountered on the East Marquam Interchange area (Project No. I-5-6(41)301), we would strongly recommend that you expedite negotiations to finalize an agreement with the above firms as soon as possible. We appreciate the fact that the type of structure and bent location is not definite at this time, but the general location is known and your ground rules certainly should be obvious after study.

On any project as complicated as the subject project, coordination between the railroads and utilities prior to the actual physical construction to the maximum extent practicable would obviously expedite the construction work and prevent the confusion experienced in the East Marquam Interchange area. It is expected that there possibly could be some overbuilding or outright purchase of railroad property in this area, and the situation would probably require considerable study by the railroad people before final solution could be obtained. PPM 21-12 also requires that all utility and railroad work be accomplished or arrangements made to coordinate such work with the highway work. There should be no authorizations to proceed until agreement has been reached with the railroad (See PPM 21-10, paragraph 23d). Although minor variations have prompted waivers of this requirement on some previous projects, it is felt that you have ample time to obtain an agreement with the railroad people on this specific project,

(more)

dig copies
REFERRED TO
Litchfield - Young - Bunker
BY ASST. STATE HWY. ENGR.
Ted - Please see me 1-25-66

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

2-1-66 Assumed will handle
Pursuant to request
Parsons
NOTED
F.B. KLABOE

By ltr 3/10/66
3/8 3/15

and it is expected that no waiver will be authorized if the agreement has not been consummated at the time of P.S. & E. approval.

In order that we may see the results of your negotiations, please furnish us with a proposed schedule in dealing with railroad companies on the above project.

3/18/66
Meeting with Porter, Merchant, Mocking, Littfield.
We will proceed to Assoc with BPR & OP's
latest proposal. Then act accordingly. JTSt.

RECEIVED
JAN 24 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 8 - 1965
FOR FILING

Const
Projects
Muni - Portland
E. Fremont Int

Salem, Oregon 97310
December 8, 1965

Mr. F. D. Morgan
Construction Engineer
BUILDING

Right of Way Negotiations
with the City of Portland,
East Fremont Interchange
Area, Stadium Freeway

I enclose a copy of a letter from A. E. Johnson having to do with a City proposal for relocating their Stanton-Harris Yards.

Please analyze; confer with Mossman as to possibilities and report to me your findings.

F. B. Klabee
Assistant State Highway Engineer

FBK:erb

Enclosure

FORM E-20 60M 3-61 SP*6470-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
December 6, 1965

SUBJECT: Right of Way Negotiations with the City of Portland East Fremont Interchange Area Stadium Freeway

To: Mr. F. B. Klaboe
Assistant State Highway Engineer
State Highway Building
Salem, Oregon 97310

Recently the City of Portland has obtained the services of an architectural firm to study the relocation problem for their Stanton-Morris Yards in the East Fremont Interchange area. On Friday, December 3, Mr. Drulard, City Engineer, indicated that it was their thought at this time that they wish to occupy a portion of the interchange area for parking of vehicles, storage of materials and possibly for a minor building or buildings.

Mr. Drulard indicated that it was the City's thought that possibly we could negotiate at this time with the City of Portland for properties in question and let the City occupy the properties until such time as we would require use. He would then propose to renegotiate for the properties the City would desire for their use. Through such an arrangement, it would be possible for financing of at least a portion of the building costs to replace those buildings which the City now occupies, and which are to be removed by our construction.

In accordance with our telephone conversation this date, this information is forwarded herewith to you for further handling and a decision in the matter.

A. E. Johnson
Metropolitan Engineer

AEJ:sh

cc Mr. F. D. Morgan

RECEIVED
DEC 7 1965
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 1 - 1965

FOR FILING

I-405-8(22)304
1310

Agenda
I-h
11-4-65

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 9, 1965

To: Mr. Floyd Query
Secretary
State Highway Commission
B U I L D I N G

SUBJECT: Demolition Contract - Clearing Block 12, Lots 11, 12, 13 & 14, Riverview Add.; Block 5, Lots 13, 14 & 15, Cooks Addition; & N. Cottage Court between N. Morris and N. Stanton, Portland, Ore.

On November 4, 1965 the Oregon State Highway Commission awarded the demolition contract to the Iversen Construction Co. for the low bid of $4620.00. This authority is set forth in Volume 50, Minute Book of the Oregon State Highway Commission.

We are attaching hereto the original copies of the contract and performance bond to be held in your office file until completion of the project. This work is to be completed by December 20, 1965.

W. H. Haskin sp

W. H. HASKIN
Property Manager

sp

Attachments - 2

FORM S-90 80M 3-65 SP°6470-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

1-k

Salem, Oregon
October 28, 1965

To: Mr. Floyd Query
Secretary

SUBJECT: AGENDA ITEM FOR NOVEMBER 4 COMMISSION MEETING
File Nos. 36476, 36461, 36483, and 36479
North Portland Harbor-Russell Street Section
Pacific Highway
Multnomah County

AGENDA
NOV 4 1965
1k

Please place on the agenda of the November 4 meeting the matter of a demolition contract on the North Portland Harbor-Russell Street Section of the Pacific Highway.

Bids were received on October 27, 1965, for the demolition of buildings on four right of way files:

File No. 36476 - The removal of a house located on the north one-third portion of Lots 13 and 14, Riverview Addition, lying on the west side of North Bothwick Street between North Fargo and North Monroe Streets.

File No. 36461 - The removal of a three-story apartment building located in the Duniways Addition, Lot 12, lying on the west side of North Bothwick Street between Monroe and Morris Street.

File No. 36483 and 36479 - The removal of two houses located in the Proebstel's Addition, Lots 13 and 14, lying on the northeast corner of Block 5, between Albina Street and North Cottage Court.

Also included will be the filling of basements, rough grading of the area, and removal of debris fron North Cottage Court.

This demolition contract is necessitated by the inability of the State to dispose of the improvements by public auction. The buildings are now a nuisance and a hazard to the public, and must be demolished. Two bids were received for the demolition work—the low bidder being the Iverson Construction Company in the amount of $4,620.

The cost of this demolition work has been programed and approved by the Bureau of Public Roads.

1 copy in Salem

(A)
2 COPIES TO BE SIGNED
By Moehring

G. E. ROHDE
Chief Counsel

D. H. Moehring
Right of Way Engineer

NOTED
FLOYD QUERY

DHM:SM:JP
cc: G. E. Rohde
Attachments (3)

Return to Hanton, for handling

CAA:sp
10-20-65

Part G

CLEARING BLOCK 12, LOTS 11, 12, 13 & 14, RIVERVIEW ADDITION; BLOCK 5, LOTS 13, 14 & 15, COOKS ADDITION; AND N. COTTAGE COURT BETWEEN N. MORRIS & N. STANTON, PORTLAND, OREGON

CONTRACT

THIS AGREEMENT, made this 8 day of November, 1965, by and between the STATE OF OREGON, acting by and through its State Highway Commission, hereinafter called "State," and Iversen Construction Co., 910 S. W. 14th, Portland, Oregon, hereinafter called "Contractor."

W I T N E S S E T H:

That the Contractor, in consideration of the sums to be paid to him by the State, in the manner and at the times hereinafter provided, and of the other covenants and agreements herein contained, hereby agrees, for himself, his heirs, administrators, successors and assigns, to construct and complete the work herein described, furnishing the necessary machinery, tools, apparatus, materials and labor and doing all things in accordance with the Instructions to Bidders, General Provisions, and Special Provisions, which are hereby specifically referred to and made a part of this contract and have the same force and effect as though all the same were fully inserted herein.

The State shall pay the Contractor for the performance of the contract, subject to conditions provided herein, the sum of Four Thousand Six Hundred Twenty and No/100 - - - - - - - - - - - - - - - - DOLLARS ($ 4,620.00), such payment to be made in the manner and at the times provided in the General provisions hereto appended.

IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their seals as of the day and year first above written.

This contract was approved by the Oregon State Highway Commission on Nov. 4, 1965, at which time the Secretary for the Commission was authorized

CAA:cal
8/3/65

and directed to sign said contract for and on behalf of the Commission. Said authority is set forth in Volume 50, Page ____, Minute Book of the Oregon State Highway Commission.

Floyd Queen
Secretary

APPROVED

Asst. State Highway Engineer

APPROVED AS TO FORM:

Chief Counsel

CONTRACTOR:

ATTEST:

By HERZOG CONSTRUCTION CO

Stanford C Herzog JR CEO

CAA:sp
8-20-65

BOND NO. 03-19-29

Part F

CLEARING BLOCK 12, LOTS 11, 12, 13 & 14, RIVERVIEW ADDITION; BLOCK 5, LOTS 13, 14 & 15, COOKS ADDITION; AND N. COTTAGE COURT BETWEEN N. MORRIS & N. STANTON, PORTLAND, OREGON

PERFORMANCE BOND

(Demolition Contract)

KNOW ALL MEN BY THESE PRESENTS:

That we, Iversen Construction Co., a California Corporation,

as principal, and GLENS FALLS INSURANCE COMPANY,

a corporation duly organized and existing under and by virtue of the laws of the State of New York and duly authorized to transact the business of surety in the State of Oregon, as surety, are jointly and severally held and bound unto the State of Oregon, by and through its State Highway Commission, in the sum of

Five Thousand and No/100 - - - - - - - - - - DOLLARS ($ 5,000.00),

for the payment of which we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT,

WHEREAS, the principal herein has made and entered into a certain contract with the State of Oregon, by and through its State Highway Commission, a copy of which contract is hereto annexed and made a part hereof, under which contract the principal agrees to furnish certain materials and to perform certain work consisting of the demolition and removal of buildings located on and clearing of Block 12, Lots 11, 12, 13 & 14, Riverview Addition; Block 5, Lots 13, 14 & 15, Cooks Addition; and N. Cottage Court between N. Morris & N. Stanton, Portland, Oregon;

NOW, THEREFORE, if the principal herein shall faithfully and truly observe and comply with the terms of such contract and shall well and truly perform all matters and things by him undertaken to be performed under said contract upon the terms proposed therein and shall do all things required of said principal by the laws of this state and shall indemnify and save harmless the State of Oregon, the State Highway Commission, and members thereof, its officers, employees and agents, against any direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the said contract by the contractor or subcontractors, then this obligation is to be void, otherwise, to remain in full force and effect.

CAA:cal
7/26/65

In no event shall the obligations under this bond be terminated without written consent of the State of Oregon, by and through its State Highway Commission.

Signed and sealed this 1st day of November, 1965.

PRINCIPAL IVERSEN CONSTRUCTION CO.

BY Richard C Iversen TREASURER
(Official Capacity)

Attest: _____
Secretary

SURETY GLENS FALLS INSURANCE COMPANY

By Paige S. Tongue
Paige S. Tongue Attorney~~-in-Fact~~

Countersigned:

_____
Resident Agent

APPROVED AS TO AUTHORITY OF ATTORNEY-IN-FACT
AND RESIDENT AGENT FOR THE SURETY COMPANY.
STATE INSURANCE DEPARTMENT
BY Walter B. Bolam 2d.
Insurance Commissioner

RECEIVED
NOV 2 1965

GLENN L. JACKSON, CHAIRMAN
MEDFORD
WADDO
DAVID B. SIMPSON, MEMBER
PORTLAND
FLOYD QUERY, SECRETARY
SALEM

I-405-8(22)304
7310
Rudi

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
5821 N. E. Glisan Street
Portland, Oregon 97213

FOREST COOPER
STATE HIGHWAY ENGINEER
R.L. PORTER
DEPUTY STATE HWY. ENGR.
LEONARD I. LINDAS
CHIEF COUNSEL

October 28, 1965

Mr. Norman R. Drulard
City Engineer
CITY HALL
City of Portland
Portland, Oregon 97204

NOTED
F. B. KLABOE

Dear Mr. Drulard:

Reference is made to your letter of October 6, 1965 relative to the relocation of the City Stanton Yard facility necessitated by the construction of the East Fremont Interchange. You indicated that the City is considering a complete relocation study by a private consultant and in accordance with our previous conversations, it was believed that it might be possible to obtain federal participation from Highway funds for this consulting work.

This letter is to verify my conversation with you yesterday, October 27, that the Bureau of Public Roads had advised this office that since your relocation study would be in connection with a right of way problem and not a definite utility relocation problem, they could not authorize participation in the work of your consultant. Therefore, we must advise you that the Highway Department cannot participate at this time in consultant fees and will rely on our usual right of way negotiations with the City of Portland.

Very truly yours,

Original Signed by A. E. Johnson

A. E. Johnson
Metropolitan Engineer

AEJ:sh

cc F. B. Klaboe
F. D. Morgan
F. T. Fowler

RECEIVED
NOV 1 1965
OFFICE OF
STATE HIGHWAY ENGINEER

WILLIAM A. BOWES
COMMISSIONER
DEPARTMENT OF PUBLIC WORKS

B. J. LINDSTEDT
CHIEF OF OPERATIONS
NORMAN R. DRULARD, P. E.
CITY ENGINEER

CITY OF PORTLAND
OREGON

October 6, 1965

Mr. A. E. Johnson
Metropolitan Engineer
State Highway Department
5821 N.E. Glisan Street
Portland 13, Oregon

Subject: Relocation of City Stanton Yard Facilities Necessitated by Construction of Fremont Interchange.

Dear Sir:

Recent discussions with your office have pointed out the necessity of the City relocating its Public Works facilities in the area of the Fremont Interchange necessitated by the freeway construction.

The City recognizes that a partial relocation of some of the facilities in this area are necessary and that a consolidation should be effected for best operating procedures, keeping in mind the various ramps of the freeway in the relocation of buildings and access to the freeway. This necessitates a rather involved study to effectively carry out the above relocation.

The City is considering a complete study by a private consultant for this work. We understand that this might properly be considered part of the cost of any relocation under the highway program, and that funds might be made available for this purpose.

Before entering into any agreement with a consultant we would appreciate your opinion as to this being a proper charge against the project, and any stipulations that should be in an agreement that the City would enter into with a consulting firm.

Very truly yours,

N. R. DRULARD, P.E.
City Engineer

NRD:j

cc: Mr. F. T. Fowler

METROPOLITAN ENGINEER
RECEIVED
OCT 8 1965
Noted ☒ ☐ ☐ ☐ ☐
ME AME AME MRE

RECEIVED
AUG 31 1965

FORM E-50X—[illegible]—7-65 SP*6230-754

FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
August 25, 1965

304

7.10

To: MEMO TO THE FILES

SUBJECT: City Shops
East Fremont Interchange

At 9:00 a.m. this date, a meeting was held in the office of Norman Brulard, City Engineer, for the purpose of discussing the relocation of the City Shops in the East Fremont Interchange area. Attending this meeting representing the Highway Department in addition to myself were Messrs. J. J. Smith and J. H. Verstoeg. Attending representing the City of Portland were Commissioner William A. Bowes, City Engineer Norman Brulard, Messrs. C. A. Dow, Ray Cruden, Joe Nichuser, Carl Short, W. T. Mannahan and G. L. Lindstedt.

It was pointed out to Commissioner Bowes and to the group that in May of 1964 an attempt was made by Mr. F. B. Klaboe, then Metropolitan Engineer, to present the possibility of relocating the City Shop facilities within the East Fremont Interchange complex. A right of way map was presented at this meeting indicating the area which has been acquired by the State Highway Department and the areas presently occupied by the City of Portland. It was pointed out that to date no conclusions have been reached as to the feasibility of the City's relocation in the East Fremont Interchange area and that the purpose of the meeting today was to attempt to determine if relocation by the City within the interchange complex was feasible and, if so, what the cost would be. It was explained to Commissioner Bowes that a previous estimate for buying out the properties involved belonging to the City of Portland had been presented to the Bureau of Public Roads and that it was their request that we study the feasibility of relocation within the complex. It was explained that if such a relocation was not feasible, we would appreciate some valid reasons so that we may present these to the Bureau of Public Roads as a basis for our future dealings with the City.

Commissioner Bowes indicated that up to the present time the City had not been presented the definite maps of the area and that this was the apparent reason why no conclusions had been arrived at as to relocation. I advised Commissioner Bowes that I had understood that sufficient plans had been furnished them and that it was our desire now to go ahead with something definite and proceed with plans to provide availability of the area for construction of the East Fremont Interchange.

The various areas within the interchange complex that would be available to the City were pointed out to them and it was indicated that there were two areas that would be acceptable for parking areas and a third area would be suitable for building construction. Commissioner Bowes indicated that even though buildings were not directly under one of our structures, fire-proofing of a building would be a necessity and this was agreed. It was pointed out that there would be some difficulties with parking areas within the complex due to the possibility of debris, bottles, etc., being thrown from the structures and the possibility of cigarettes and inflammable material being thrown from the structures. Commissioner Bowes stated that they would not like to build in the complex and would prefer to reestablish their shops outside of the interchange complex itself and adjacent to the Stanton Yard Shops, which will not be affected by our interchange construction. It was pointed out by others that it may be feasible to utilize some of the area, however, for City properties and Commissioner Bowes agreed that a study should be made and that the City would need as a result of this study an overall plan for entire relocation. Commissioner Bowes indicated that there were plans by the City to also relocate the City Shops in the vicinity of 12th and Powell to this same vicinity in order to establish all their facilities in one area. I pointed out that since the moving of the shops at 12th and Powell was not the result of highway construction, the cost of this relocation should be, and have to be, kept separate.

As to the use of the interchange area for parking, etc., Commissioner Bowes indicated that he was under the impression that a policy had been adopted by the Highway Commission whereby the City of Portland would have first choice for any area within the interchange complex for parking purposes and he believed this would also pertain for storage areas, although it was indicated that it would not be desirable, nor permitted, to store inflammable materials in the area.

Commissioner Bowes inquired as to a deadline for terminating a study and suggested an 18-month period in which

to make a study for relocation and I advised Commissioner Bowes that it was our thought that the subject should be terminated much sooner than that; namely, as soon as possible. Commissioner Bowes indicated he felt it would take several months to make an adequate study and that it was possible that they would want an architect to make a study for them also. It was, therefore, agreed that we would set a four-month period for this study and plan for another meeting in early January to receive the results of the City's study and plan.

Original Signed by A. E. Johnson

A. E. Johnson
Metropolitan Engineer

AEJ:mh

cc F. E. Klaboe
Ivan D. Merchant
F. D. Morgan
D. H. Mosbring
J. J. Smith
J. H. Verstegg

RECEIVED
AUG 30 1965
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 20 1965
FOR FILING

I 4C5 8(2)3d:1
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
August 26, 1965

To: Mr. C. M. Maison
Controller
Accounting Division
B u i l d i n g

SUBJECT: Demolition Contract - Clearing Block 11, Lots 1 through 14, Riverview Addition, Portland, Oregon

We are attaching a bill from the Iversen Construction Co. for the demolition contract authorized by the Highway Commission at the July 13, 1965 meeting. This contract has been completed.

W. H. HASKIN
Property Manager

WHH:cal

Attachment

cc: Mr. Floyd Query
cc: Mr. H. V. Jackson

NOTED
FLOYD QUERY

INVOICE

IVERSEN CONSTRUCTION

NEW ADDRESS
354 UMBARGER RD.
SAN JOSE, CALIF. 95111
AREA CODE 408 -- 227-0853

RECEIVED
AUG 26 1965
LOCAL BOARD OF TAX

TO State of Oregon Highway Dept
506 State Highway Bldg.
Salem, 10, Oregon

DATE 8-24-65

JOB # _____

TERMS: NET 30 DAYS. NO DISCOUNT.

DATE	DESCRIPTION	UNIT	RATE	EXT.	TOTAL
	Demolition and Clearing				
	Block 11, Lots 1 through 14,				
	Riverview addition, Portland.				6,388.00
	Bills Payable to				
	Iversen Const Co.				
	P.O. Box 830				
	Portland, Oregon				
			TOTAL		6,388.00

Will Iversen

CAA:jw
6/14/65

Part G

CLEARING BLOCK 11, LOTS 1 THROUGH 14, RIVERVIEW ADDITION, PORTLAND, OREGON

CONTRACT

THIS AGREEMENT, made this 14th day of July, 1965, by and between the STATE OF OREGON, acting by and through its State Highway Commission, hereinafter called "State," and

Iversen Construction Co.

1102 S. W. 14th Ave., Portland, Oregon,

hereinafter called "Contractor."

W I T N E S S E T H:

That the Contractor, in consideration of the sums to be paid to him by the State, in the manner and at the times hereinafter provided, and of the other covenants and agreements herein contained, hereby agrees, for himself, his heirs, administrators, successors and assigns, to construct and complete the work herein described, furnishing the necessary machinery, tools, apparatus, materials and labor and doing all things in accordance with the Instructions to Bidders, General Provisions, and Special Provisions, which are hereby specifically referred to and made a part of this contract and have the same force and effect as though all the same were fully inserted herein.

The State shall pay the Contractor for the performance of the contract, subject to conditions provided herein, the sum of Six thousand, three hundred and eight-eight and no/100 DOLLARS ($6,388.00), such payment to be made in the manner and at the times provided in the General Provisions hereto appended.

IN WITNESS WHEREOF, the parties hereto have set their hands and affixed their seals as of the day and year first above written.

This contract was approved by the Oregon State Highway Commission on July 13, 1965, at which time the Secretary

CAA:jw
6/14/65

for the Commission was authorized and directed to sign said contract for and on behalf of the Commission. Said authority is set forth in Volume 50, Page - - - -, Minute Book of the Oregon State Highway Commission.

Floyd Owens
Secretary

APPROVED:

W B Klabre
Asst. State Highway Engineer

APPROVED AS TO FORM:

Frank C McKinney
~~Chief~~ Counsel
Acting and.

ATTEST:

W H Haskins

CONTRACTOR:

By Richard E Iverson

IVERSEN CONSTRUCTION CO

CAA:jw
6/14/65

Bond No. 98-88-28
Premium $64.00

CAA:jw
6/14/65

Part F

CLEARING BLOCK 11, LOTS 1 THROUGH 14, RIVERVIEW ADDITION, PORTLAND, OREGON

PERFORMANCE BOND

(Demolition Contract)

KNOW ALL MEN BY THESE PRESENTS:

That we, IVERSEN CONSTRUCTION CO., as principal, and GLENS FALLS INSURANCE COMPANY, a corporation duly organized and existing under and by virtue of the laws of the State of NEW YORK and duly authorized to transact the business of surety in the State of Oregon, as surety, are jointly and severally held and bound unto the State of Oregon, by and through its State Highway Commission, in the sum of

Six thousand, three hundred eighty-eight and no/100 DOLLARS ($ 6,388.00),

for the payment of which we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns firmly by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT,

WHEREAS, the principal herein has made and entered into a certain contract with the State of Oregon, by and through its State Highway Commission, a copy of which contract is hereto annexed and made a part hereof, under which contract the principal agrees to furnish certain materials and to perform certain work consisting of the demolition and removal of buildings located on and clearing of Block 11, Lots 1 through 14, Riverview Addition, Portland, Oregon;

NOW, THEREFORE, if the principal herein shall faithfully and truly observe and comply with the terms of such contract and shall well and truly perform all matters and things by him undertaken to be performed under said contract upon the terms proposed therein and shall do all things required of said principal by the laws of this state and shall indemnify and save harmless the State of Oregon, the State Highway Commission, and members thereof, its officers, employees and agents, against any direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the said contract by the contractor or subcontractors, then this obligation is to be void, otherwise, to remain in full force and effect.

CAA:jw
6/14/65

In no event shall the obligations under this bond be terminated without written consent of the State of Oregon, by and through its State Highway Commission.

Signed and sealed this 15TH day of JULY, 1965.

PRINCIPAL WEESEN CONST. CO.

By Richard C Jensen TREAS
(Official Capacity)

Attest: _____
Secretary

SURETY GLENS FALLS INSURANCE COMPANY
Attorney-~~in-fact~~

By Paige S Tongue
PAIGE S. TONGUE

Countersigned:

RICHARD E. ASHTON Resident Agent

APPROVED AS TO AUTHORITY OF ATTORNEY-IN-FACT
AND RESIDENT AGENT FOR THE SURETY COMPANY.
STATE INSURANCE DEPARTMENT
BY Walter A Kalen Jr
Insurance Commissioner

July 16, 1965
Bond approved by Frank Dierkamp

RECEIVED
JUL 23 1965

FOR FILING

I 405-8(22)3
7310

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 21, 1965

SUBJECT: Right of way files north of Monroe Street and east of Kirby Street

To: Railroads

Mr. James J. Smith
District Supervisor

PORTLAND

The right of way files in the subject area are currently being written by Floyd Scott's section and as soon as approval is received, they will be forwarded to you for negotiation.

The Stanton Yard taking in this same general area is to be worked out by Metropolitan Engineer Johnson. I would suggest that you keep in close contact with Mr. Johnson on the Stanton Yard matter as you will be involved in the transaction as soon as he is able to work something out with the City.

Mr. Klaboe is going to notify Mr. Jackson to take the matter up with the City.

D. H. MCEHRING
Right of Way Engineer

DHM:SM
cc: F. B. Klaboe
G. E. Rohde
A. E. Johnson

NOTED
F. B. KLABOE

RECEIVED
JUL 22 1965
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUL 7 - 1965
FOR FILING
I 405-8(32)304
7310
Reclam

77

July 6, 1965

Mrs. Shirley M. Terrell
139 Gillette Street
San Francisco, California 94124

Re: East Fremont Interchange
Stadium Freeway
Multnomah County

Dear Mrs. Terrell:

This is in answer to your letter of June 24 regarding the possible need for taking your property, legally described as Lot 4, Block 10, Riverview Addition to the City of Portland.

Our tentative plan will require a portion, if not all, of your property. This plan has not had final approval as we are working on an agreement with the City of Portland for this very area at the present time.

When we are in a position to purchase right-of-way in this location and, if in the final analysis your property is needed, you will be contacted by our Right of Way Division.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: Mr. Forrest Cooper
Mr. R. L. Porter
Mr. F. D. Morgan
Mr. D. H. Mooberry

DHS:jp srb

CENTRAL ALBINA ADD.

N. KIRBY AVE. | N. COMMERCIAL AVE. | N. HAIGHT AVE | N. GANTENBEIN AVE | ALBINA AVE.

N. FREMONT ST. | NORTH'S ADD. | Curb Lines 15' from Property Lines | N. of Probstfield's D.L. | N. GANTENBEIN | ALBINA ADD. | ALBINA AVE. | N.E.

N. IVY ST.

SUBD. OF RIVERVIEW ADD. | Vacated | VACATED AVE.

SUBD. OF RIVERVIEW ADD.

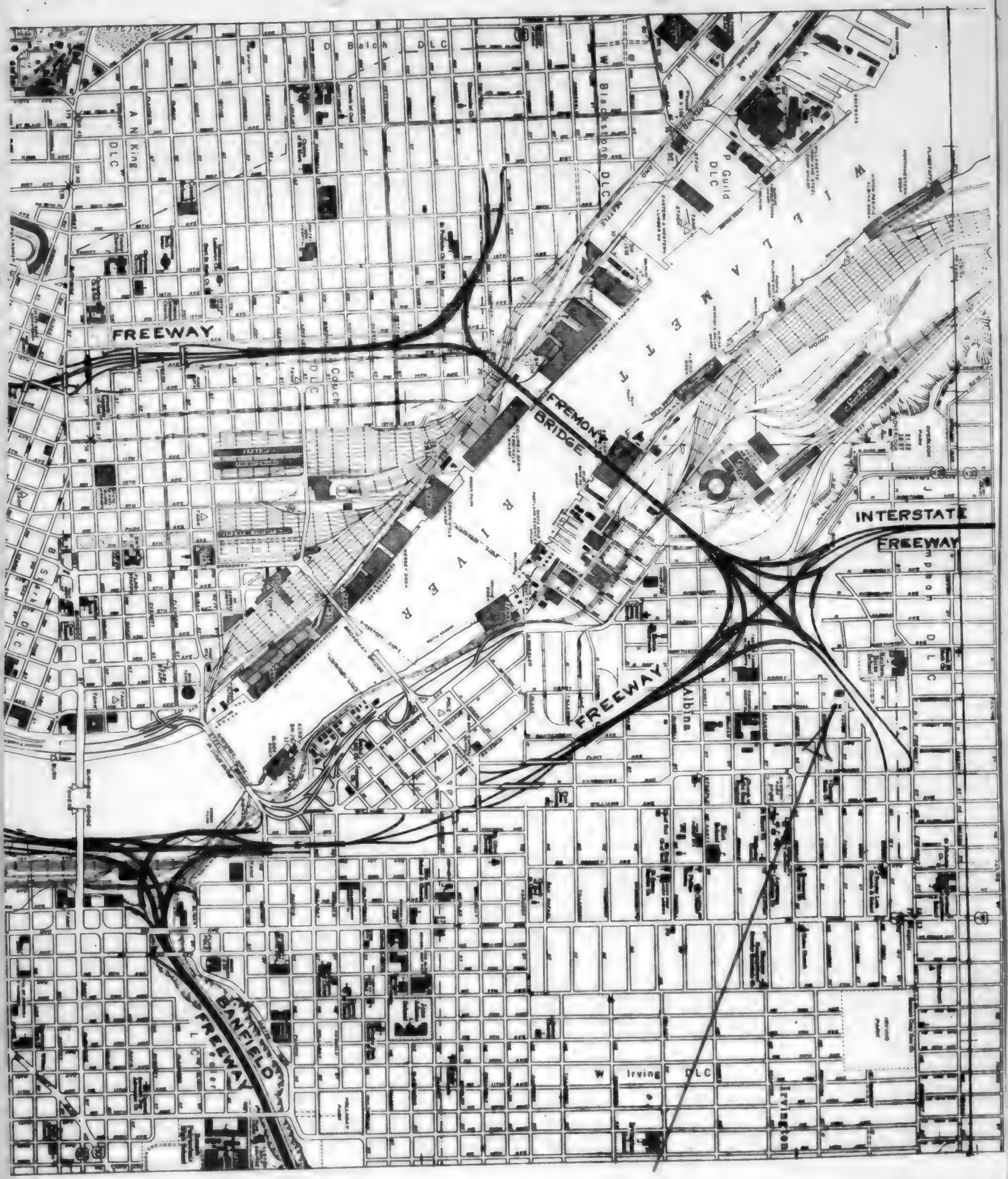
N. COOK ST.

N. FARGO ST.

N. MONROE ST.

N. MORRIS ST.

DAWSON


D Blaine DLC
A N King DLC
Blackstone DLC
P P Guild DLC
FREEWAY
Couch DLC
FREMONT BRIDGE
INTERSTATE FREEWAY
Albina
FREEWAY
BANFIELD FREEWAY
W Irving DLC
Irvington

7510.

SUGGESTED REPLY FOR THE GOVERNOR'S CONSIDERATION
September 14, 1964

Mr. Curtis L. McDonald
Alpine Real Estate
3229 North Williams Avenue
Portland 17, Oregon

Dear Mr. McDonald:

Thank you for your letter of August 27 relative to a negotiation by the State Highway Department with Mrs. William Burton of 643 North Monroe Street in Portland.

A check with the Highway Department indicates that negotiations have been conducted with Mr. and Mrs. Burton to acquire their property for highway right-of-way purposes. The Department further reports that the Burtons mentioned the listing but at no time requested that the proposed acquisition be negotiated through you as an agent. The Highway Department is limited to paying the fair market value for the area it seeks and the matter of a commission is something to be worked out between the property owner and yourself.

I am further advised that to date the transaction has not been consummated and the Highway Department anticipates that a condemnation procedure may be necessary. If you feel you have some interest in the property, I suggest that you call this to the attention of the Chief Counsel of the State Highway Commission at Salem and he will see that you are afforded the same protection as other legal interests in the property.

RLP:ms bbc

FORM E-90 8001 12-60 84576

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 8, 1964

SUBJECT: File No. 36440 - Ericson

To: Mr. R. L. Porter
Deputy State Highway Engineer

B u i l d i n g

Herewith, in rough draft for the Governor's signature, is a suggested form of reply to Real Estate Broker, McDonald. This responds to your verbal assignment of last Thursday.

L. I. LINDAS
Chief Counsel

By W.T.W.
Walter T. Wright
Right of Way Engineer

WTW:gc

cc - L. I. Lindas

RECEIVED
SEP 9 1964
OFFICE OF
STATE HIGHWAY ENGINEER

ROUGH DRAFT

Salem, Oregon 97310
September 8, 1964

Mr. Curtis L. McDonald
Real Estate Broker
Albina Real Estate
3229 N. Williams Avenue
Portland 17, Oregon

Dear Mr. McDonald:

This will acknowledge your letter of August 27, 1964, relative to a Highway Department transaction identified by their File No. 36440.

A report from that Department indicates that negotiations have been conducted with Mr. and Mrs. Burton, who are owners of the property. The Right of Way Agent states that the Burtons mentioned your listing, and expressed the hope that the transaction could be completed without paying a real estate commission, inasmuch as the highway need has not arisen in consequence of any effort to sell on your part. At no time did the owner suggest that his interest be negotiated by you. The Highway Right of Way Agent states that he responded to the effect that he could not offer any sum beyond the sale market value to compensate for a brokerage fee; that the owners' relationship with you lay between the two parties; but so far as he knew, their point relative to sales effort was a valid basis for not paying a real estate commission.

I am informed that the transaction for the property has not been consummated, and it appears that legal action may be necessary in order to accomplish it. The Highway legal counsel states that the normal real estate contract would probably not create, for the broker, a real property interest in a property under condemnation;

however, the nature of your contract may be such as to create a legal interest in the property. If this be true, your property interest should be called to the attention of the Chief Counsel of the State Highway Commission. It will, thereafter, be afforded the same protections as all other legal interests in a property sought for State Highway purposes.

Very truly yours,

Mark O. Hatfield

JOW

RECEIVED
SEP 9 1964
OFFICE OF
STATE HIGHWAY ENGINEER

36440-
Ericson

ALBINA REAL ESTATE

Property Management • Rentals • Leases • Sales

3229 N. Williams Avenue
PORTLAND 17, OREGON
ATlantic 2-5571

August 27th, 1964

Hilton

His Excellency
Honorable Governor
Mark O. Hatfield
State Capitol Bldg.
Salem, Oregon

Your Excellency

I am a licensed real estate broker with office located in the Albina district of the City of Portland. For the past four years this office has had both a rental and for sale listing on a particular property located at 643 N. Monroe st. here in city. This particular property is apparently within the route of the presently proposed Fremont enterchange system.

This office has been advised by the owner, Mrs William Burton of the State Highway Dept's. interest in acquiring this property, and their representative's previous contacts with her in an effort to avoid any possible negotiation through this office. Mrs Burton did in fact instruct the agent to contact this office relative to the acquisition of her property, however the agent stated they were not interested with during any business with brokers in this area, on the other hand he has attempted to point out to the owner any possible saving that might be realized by voiding her arrangement with us thus avoiding payment of real estate commission due this office.

On April 30th 1964, we advised the Salem office of our existing listing contract with the owner, and our interest in negotiating a sale, as of this date we have had no reply to that letter. I am dispose to think that the highway deptms efforts to acquire this property are highly arregular, and that any action taken to circumvent brokers services or commission in a matter like this shows poor taste and is a violation of ethical standards for any Government agency.

Your excellency, I take courage knowing that you are fully aware of this situation, and feel sure you will take whatever action necessary to rectify it.

Very Respectfully Yours

Curtis L. McDonald
Real Estate Broker

SEP 9 1964

OFFICE OF
STATE HIGHWAY ENGINEER

7310 E. Fremont Interch. Séc.
Stadium Fwy. Unit A

#7310

TRANSMITTAL SLIP

DATE 10-22-74

BALDWIN	CITY-COUNTY	MATERIALS	
KLABOE	CONSTRUCTION	OFFICE ENGINEERING	
JOHNSON	EQUIPMENT-SHOPS	PARKS	
HUNTER	ENVIRONMENTAL	PERMITS & WEIGH.	
SCHROEDER	FINANCE	PERSONNEL	SECRETARY
COULTER	FHWA	PLANNING	SIGN SHOP
ADM. ASSISTANT	LOCATION	PUBLIC AFFAIRS	TRAFFIC
BRIDGE DESIGN	MAINTENANCE	RADIO	FILES
CHIEF COUNSEL	MANAGEMENT SERVICES	RESEARCH	MAIL
		RIGHT OF WAY	ESHB
		ROAD DESIGN	REGION ☐

ATTENTION: AL JOHNSON

FROM: Potter ENVIRONMENTAL SECTION

ACTION

- ☐ NOTE AND FILE
- ☐ NOTE AND RETURN TO ME
- ☐ RETURN WITH MORE DETAILS
- ☐ NOTE AND SEE ME
- ☐ PLEASE ANSWER
- ☐ FOR YOUR APPROVAL
- ☐ PREPARE REPLY FOR MY SIGNATURE
- ☐ TAKE APPROPRIATE ACTION
- ☒ PER YOUR REQUEST
- ☐ SIGNATURE
- ☐ FOR YOUR INFORMATION
- ☐ INVESTIGATE

COMMENTS the price list is probably out of date - we have on order info on other company's anchorages, but DEQ tell us this is probably the best.....

2 copies attached.

FORM 81-734-3100 P-70677-734

COPIES OF SLIP #1214 + #1311

Fremont Bridge Paint Claim

TRANSMITTAL SLIP

DATE 10-23-74

BALDWIN	CITY-COUNTY	MATERIALS	
KLABOE	CONSTRUCTION	OFFICE ENGINEERING	
JOHNSON	EQUIPMENT-SHOPS	PARKS	
HUNTER	ENVIRONMENTAL	PERMITS & WEIGH.	
SCHROEDER	FINANCE	PERSONNEL	SECRETARY
COULTER	FHWA	PLANNING	SIGN SHOP
ADM. ASSISTANT	LOCATION	PUBLIC AFFAIRS	TRAFFIC
BRIDGE DESIGN	MAINTENANCE	RADIO	FILES
CHIEF COUNSEL	MANAGEMENT SERVICES	RESEARCH	MAIL
		RIGHT OF WAY	ESHB
		ROAD DESIGN	REGION ☐

ATTENTION:

FROM: H.S. COULTER

ACTION

- ☐ NOTE AND FILE
- ☐ NOTE AND RETURN TO ME
- ☐ RETURN WITH MORE DETAILS
- ☐ NOTE AND SEE ME
- ☐ PLEASE ANSWER
- ☐ FOR YOUR APPROVAL
- ☐ PREPARE REPLY FOR MY SIGNATURE
- ☒ TAKE APPROPRIATE ACTION
- ☐ PER YOUR REQUEST
- ☐ SIGNATURE
- ☐ FOR YOUR INFORMATION
- ☐ INVESTIGATE

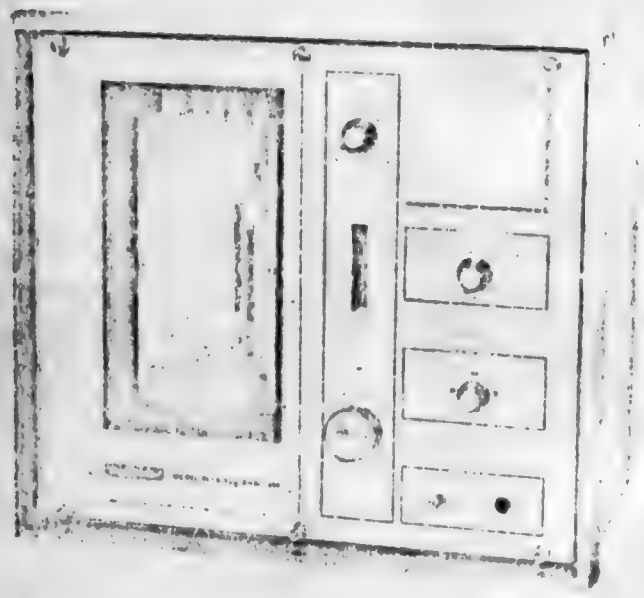
COMMENTS

Toll Free (800) 426-7974
for Sales & Service

CHUCK McDONALD
SENIOR SALES REPRESENTATIVE

Beckman INSTRUMENTS, INC.
PROCESS INSTRUMENTS DIVISION
300 - 120TH AVENUE, N.E., BUILDING 3, SUITE 131
BELLEVUE, WASHINGTON 98005
(206) 454-9528

MODEL 906A SO_2 ANALYZER



The Beckman Model 906A Sulfur Dioxide Analyzer can now deliver two improved performance specifications (see below).

Range: 0-0.25, 0-0.5, 0-1, and 0-2 ppm by volume selectable by front panel mounted switch

Minimum Detectable Limit: 0.01 ppm

Complete details are available from your local Beckman Process Sales Representative. Ask him about them.

BECKMAN INSTRUMENTS, INC.
PROCESS INSTRUMENTS DIVISION
FULLERTON, CALIFORNIA

P72618-1271-BIP PRINTED IN U.S.A.

Delivery: 2-3 Weeks

Beckman

MODEL 906A SO_2 ANALYZER

Price List 4097A PL

March, 1972

PART NO.	DESCRIPTION	PRICE
190604	A completely self-contained unit designed for the analysis of SO_2 concentration in ambient air. Consists of sample scrubber, zero filter, detector cell, sample pump, and flow controller mounted in a single compact case	$2,760.00
191094	Accessory Kit required for panel mounting of analyzer	40.00

Recommended Spare Parts List

PART NO.	DESCRIPTION	AMT.	PRICE
777003	Fuse, 3 amp (pkg. of 25)	1	$ 3.95
777156	Fuse, .25 amp (pkg. of 10)	1	4.20
191057	Electrolyte Pint	1	10.00
630685	Thermistor	1	24.00
191524	Scrubber Cartridge	3	18.50
194972	Zero Gas Filter	1	6.50
777568	Flapper Pump (pkg. of 8)	1	6.75
856251	Relay, amperite	1	8.25
777567	Diaphragm Pump (pkg. of 5)	1	9.45
193278	Reference Electrode	1	56.00
631260	Reference Electrode Replacement Cartridge	3	12.00
777570	Gasket Pump (pkg. of 25)	1	3.95
191394	Tubing, Capillary (inc. cork) (pkg. of 4)	1	20.00
631255	Periodic Maintenance Kit for Model 906A SO_2 Analyzer		68.50

Consists of:
191057 Electrolyte ..... 1 pt.
631260 Reference Electrode Replacement Cartridge 3
191524 Scrubber Cartridge (sample) 3
191394 Tubing Capillary (inc. cork) ..... 1 (pkg. of 4)
(Sufficient material for 3 maintenance cycles)

NOTE: If it is necessary to hold instrument down time to a minimum your stocking the following parts is recommended.

193940	Detector, Less Electrodes	1	$ 140.00
190395	Power Supply Assembly	1	103.00
194983	Board Water Addition	1	95.00
190326	Amplifier Assembly	1	164.00

NOTE: The calibration gas is certified 1 ppm sulfur dioxide in prepurified nitrogen. Order on a cylinder exchange basis directly from The Matheson Company, Inc.

(All prices are f.o.b. shipping point, and are subject to change without notice. Our terms are net 30 days.)

RECEIVED
TENNY ENG
OCT 23 '74
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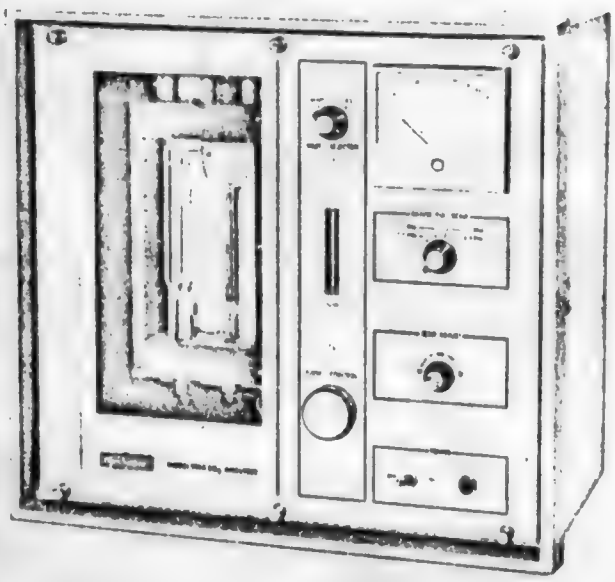
FOR
ENG DR CHK Act

PROCESS INSTRUMENTS DIVISION
FULLERTON, CALIFORNIA

P72618-1271-BIP PRINTED IN U.S.A.

BECKMAN MODEL 906A

SULFUR DIOXIDE ANALYZER



- *SPECIFIC ANALYSIS*
- *FOUR OPERATING RANGES*
- *CONTINUOUS DIRECT LINEAR READOUT*
- *SERVICEABILITY*
- *LOW MAINTENANCE*
- *RUGGED CONSTRUCTION*

The Beckman Model 906A SO_2 Analyzer provides an accurate, reliable means of continuously monitoring trace concentrations of SO_2 in ambient air. The advanced design of the instrument has eliminated the need for reagents, metering pumps, fragile glass contactors, and other complex components previously associated with air monitoring instrumentation.

Specific, continuous, and accurate determinations of SO_2 atmospheric concentrations are made by utilizing the technique of secondary coulometry in combination with selective scrubbers.

Readout is displayed on a large, front-panel meter and connections for a recorder are provided.

PRINCIPLE OF OPERATION

The flow diagram illustrated in Figure 1 shows the sample flow through the instrument and identifies the main components.

An air sample is drawn through a detector cell which contains a buffered solution of potassium iodide (KI). Any SO_2 in the air sample is oxidized by the electrogenerated iodine, and any unreacted iodine is immediately reduced back to iodide at the cathode.

A reference electrode is connected in parallel with the platinum anode and cathode. The reference electrode serves as a reference to both poles and registers any unbalance between the cathodic output and the anodic input current.

Any sulfur dioxide present in the sample competes with the cathode for the electrogenerated iodine and, as a result, the output current and the cathode is some value less than the input current. This difference is directly related to the concentration of the SO_2 in the sample.

DESCRIPTION

Three-way Sample Valve—To provide a zero reference, this valve allows ambient air to be drawn through the internal carbon zero gas filter.

Selective Scrubber* (Figure 2)—When entering through the scrubber, without affecting the SO_2 present in the sample, the ambient air is efficiently cleaned of interferents such as ozone, H_2S, and mercaptans. The chemical removal of these contaminants is the key to the unusual specificity of the analyzer in providing an accurate SO_2 measurement.

Carbon Filter—When zeroing the instrument, ambient air passes through the activated carbon filter. This filter provides pure air for a zero reference gas by removing all contaminants including SO_2.

Flowmeter—Visible on the front panel, the flowmeter and flow rate control knob permit adjustment for optimum air sample flow rate (150 cc per minute).

Capillary Inlet—The air sample flows through a Teflon† inlet tube into the detector. Since Teflon is a hydrophobic material, it effectively prevents possible plugging of the tube by electrolyte crystallization at the gas-liquid interface. Also serving as a gas flow restriction at the detector input, the Teflon tube maintains a constant pressure differential between the detector and the atmospheric pressure to achieve flow stability.

Detector Cell (Figure 3)—The air entering the detector cell acts as a lift pump, meeting and entraining the electrolyte so that a chain of bubbles moves upward into the bowl of the detector cell. All SO_2 in the bubbles is oxidized by the electrochemically generated iodine in the electrolyte. At the top of the column the air separates from the electrolyte and is aspirated from the detector by the pump. The electrolyte moves down from the bowl through the tube containing the platinum

*U. S. Patent No. 3,495,944

†Registered trademark of du Pont

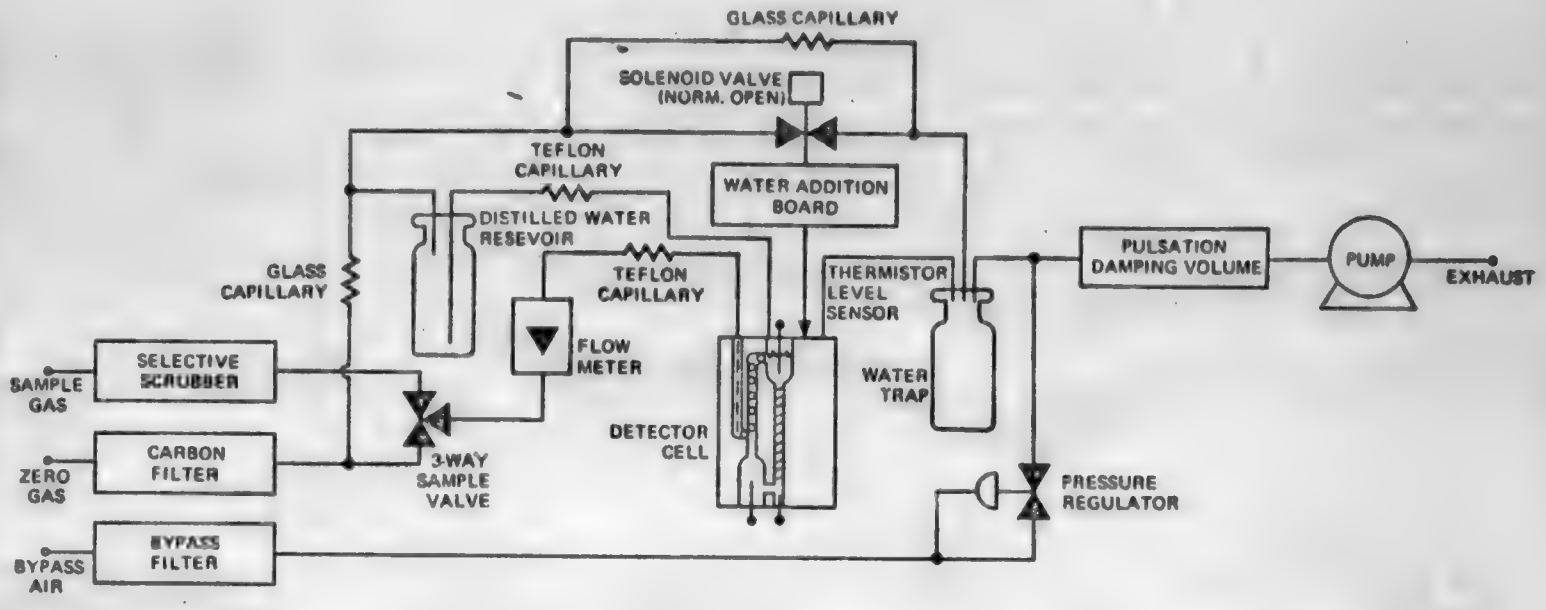


FIGURE 1. FLOW DIAGRAM OF MODEL 906A SULFUR DIOXIDE ANALYZER.

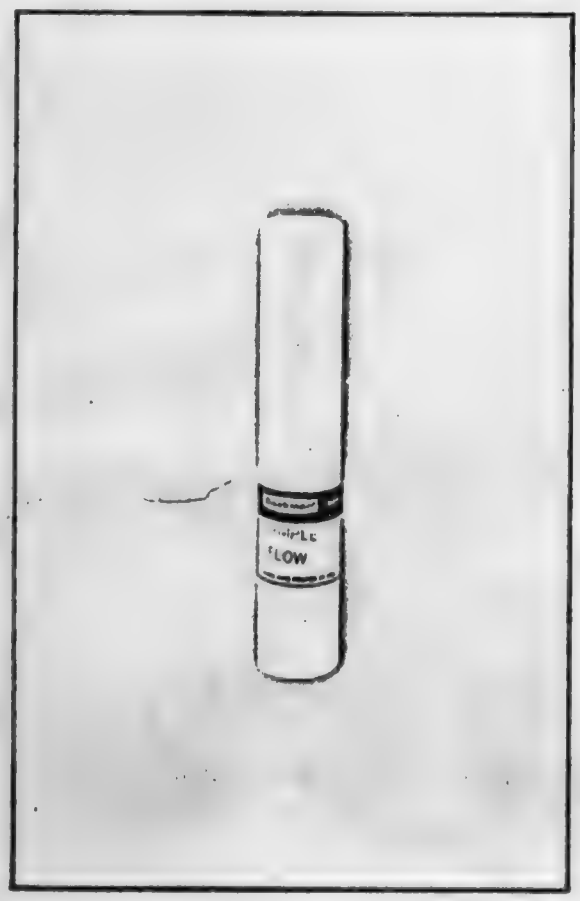


FIGURE 2. SELECTIVE SCRUBBER. U.S. PATENT #3,495,944

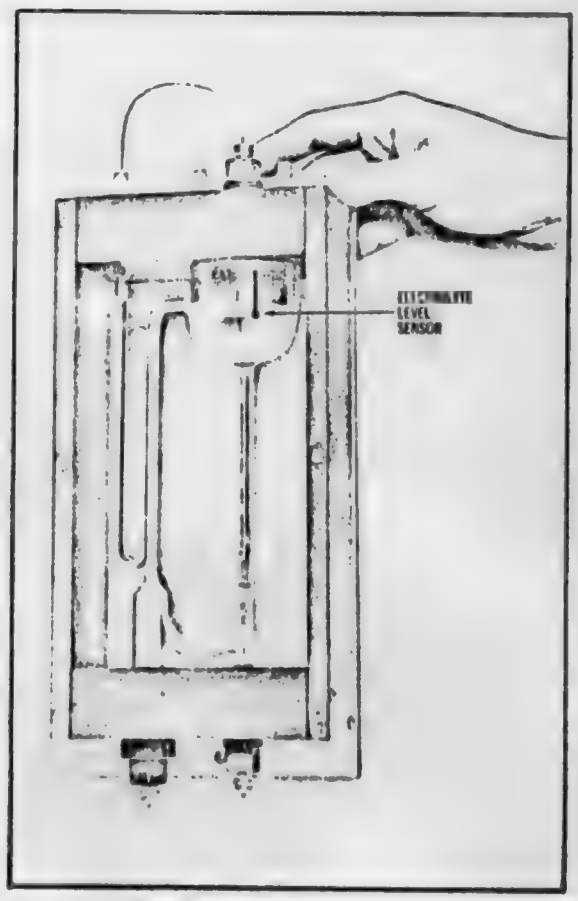


FIGURE 3. SO_2 ANALYZER DETECTOR CELL

screen cathode. Unreacted iodine is reduced to iodide at the cathode and circulated back to the anode to complete the cycle.

Water Trap—To protect the pump against accidental spill-over of electrolyte from the cell, a water trap is inserted in the sample exhaust line.

Pressure Regulator—The internal vacuum flow regulator maintains a pressure drop across the cell and maintains a constant flow rate of 150 cc/min. through the detector. This regulator is on a bypass line that supplies the balance of air needed by the 2 liter per minute sample pump. The regulator includes a particulate filter for pump protection.

Pulsation-Damping Volume—Pneumatic stability is maintained by a pulsation damping volume ensuring a smooth gas flow throughout the system.

Sample Pump—A specially modified diaphragm pump draws the ambient air through the analyzer and expels it out the exhaust connection. The pump motor operates at a reduced voltage to assure long motor life.

Reagent—The reagent consists of a buffered solution of potassium iodide which is oxidized at the anode of the Analyzer Detector Cell to produce free iodine, and is then reduced back to iodide at the cathode. Thus, the electrolyte is self-regenerating. This long reagent life is one of the unique advantages derived from the coulometric method of analysis.

Automatic Water Addition System—Since water is lost from the electrolyte by evaporation, it is necessary to add distilled water to the cell to maintain the correct reagent level. A continuous, on demand, water addition technique, which adds makeup water in small increments, is used to ensure stable operation of the instrument and provide uninterrupted meaningful data.

Included in the system are an Electrolyte Level Sensor, associated electronics, and a Water Addition Solenoid Valve. When the electrolyte level drops slightly, the level sensor (in conjunction with the necessary electronics) activates the water addition solenoid valve which creates a pressure differential between the reservoir and the detector cell. This action causes water to flow from the water reservoir into the cell restoring the proper water level.

Cabinet—The analyzer is housed in a gray steel case which can be panel or bench mounted. Case dimensions are 18"h x 19"w x 11"d. All plumbing is connected through the back of the instrument and a connection is provided for the addition of an external potentiometric recorder or digital data system for continuous recording or integration of SO_2 concentration.

COULOMETRIC TITRATION OF IODINE (Figure 4).

Electrochemical Reactions of the Cell at "No SO_2" Steady-State: $(I_A) = (I_C) = (I_S)$

I_A causes oxidation of I^- at anode: $2I^- \rightarrow I_2 + 2e^-$

I_C is caused by reduction of I_2 at cathode: $I_2 + 2e^- \rightarrow 2I^-$

A steady-state concentration of I_2 exists in solution at equilibrium (also a constant concentration ratio of I_2/I^-).

The cell system utilizes a cyclic oxidation-reduction process, where ions of I^- lost by oxidation to I_2 at the anode are transported to the cathode by the circulation and stirring in the cell, and are reduced to the same number of I^- ions as were initially present.

Chemical and Electrochemical Reactions of the Cell When an SO_2 Sample is Drawn into the Cell: $(I_A) = (I_C)$ no SO_2

$(I_A) = (I_C) + (I_R)$ with SO_2

When an SO_2 sample enters the cell, it reacts *chemically* with the steady-state iodine concentration present by the following reaction:

$$SO_2 + I_2 + 2H_2O \rightarrow SO_4^= + 2I^- + 4H^+$$

This reaction perturbs the cell by lowering the steady-state iodine concentration and the cell loses capacity to carry the full applied anodic current to the cathode. Since the cell is driven by a constant-current source, a current equivalent to the loss of iodine is passed through the reference electrode by the following reaction:

$$C \text{ (oxidized state)} + ne^- \rightarrow C \text{ (reduced state)}$$

This current is sensed by the amplifier, and is present at some level until the "no SO_2" steady-state condition of the electrochemical cell has been restored. This output current is directly proportional to the amount of SO_2 present in the sample when a constant gas-sampling rate is maintained.

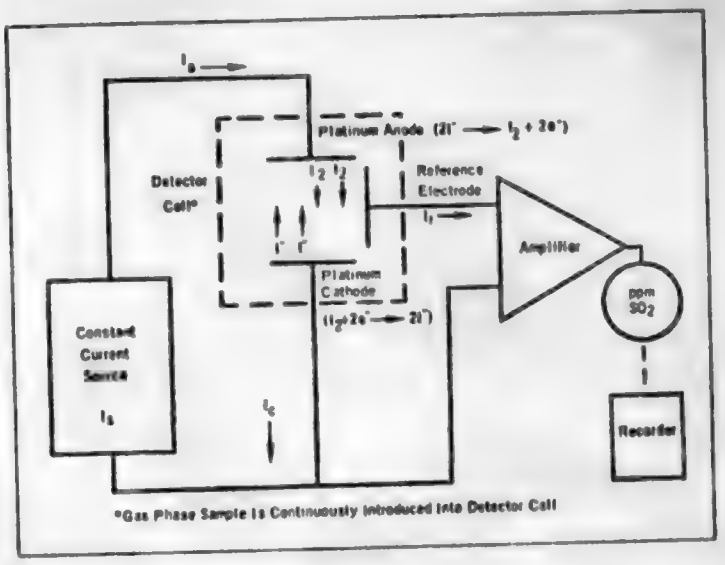


FIGURE 4. COULOMETRIC TITRATION OF IODINE

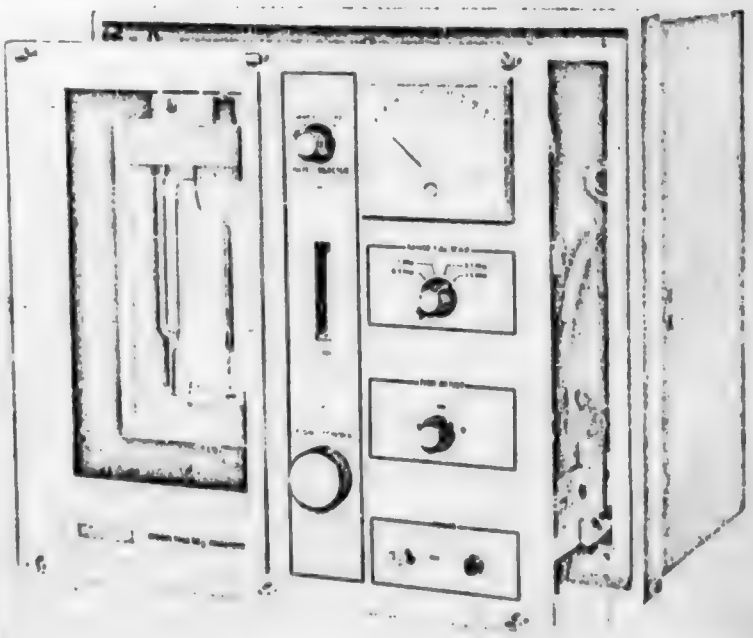


FIGURE 5. INTERNAL COMPONENTS MOUNTED ON PULLOUT CHASSIS FOR EASY ACCESS AND SERVICE WHILE MAINTAINING ELECTRICAL CONTINUITY

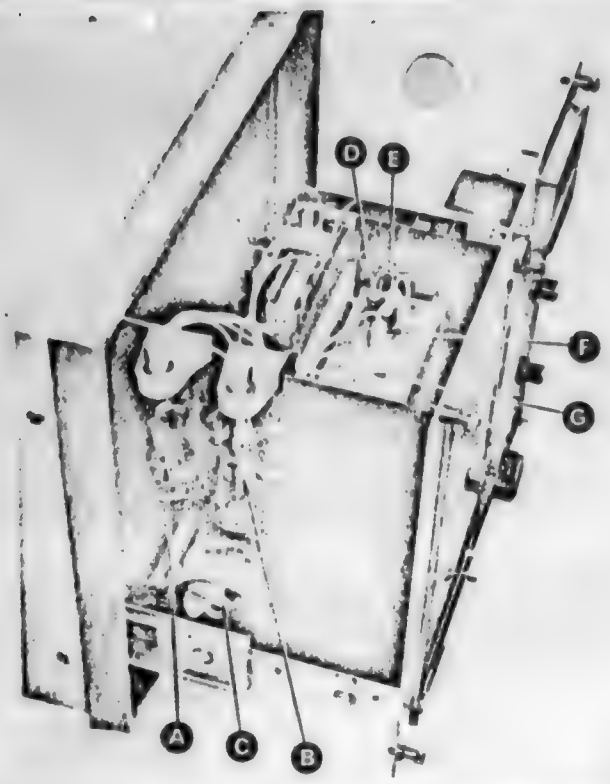


FIGURE 6. RIGHT HAND VIEW INTERNAL COMPONENTS

A. Water Trap
B. Distilled Water Reservoir
C. Pump
D. Thermistor
E. Exhaust Port
F. Water Addition Inlet
G. Sample Inlet

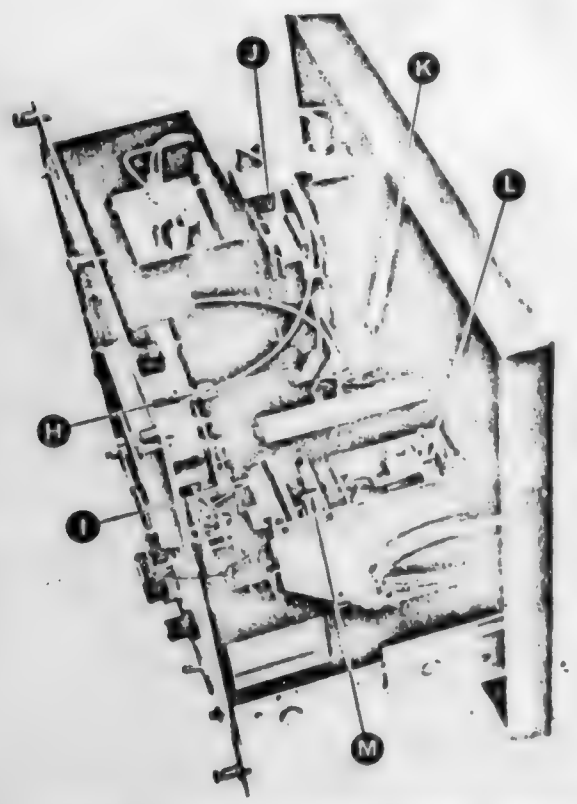


FIGURE 7. LEFT HAND VIEW INTERNAL COMPONENTS

H. Water Addition Solenoid Valve
I. Amplifier Circuit Board
J. Blower Motor
K. Pulsating Damping Volume
L. Power Supply
M. Water Addition Circuit Board

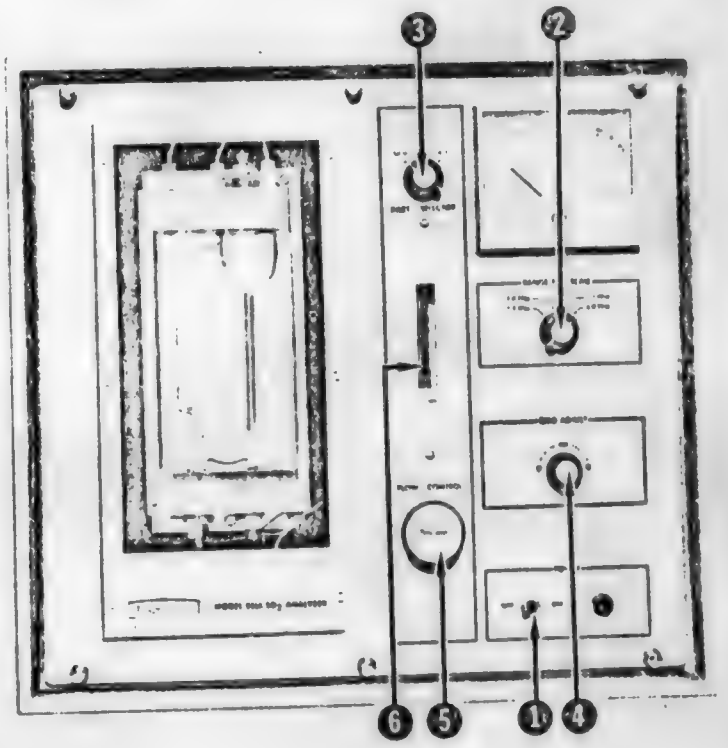
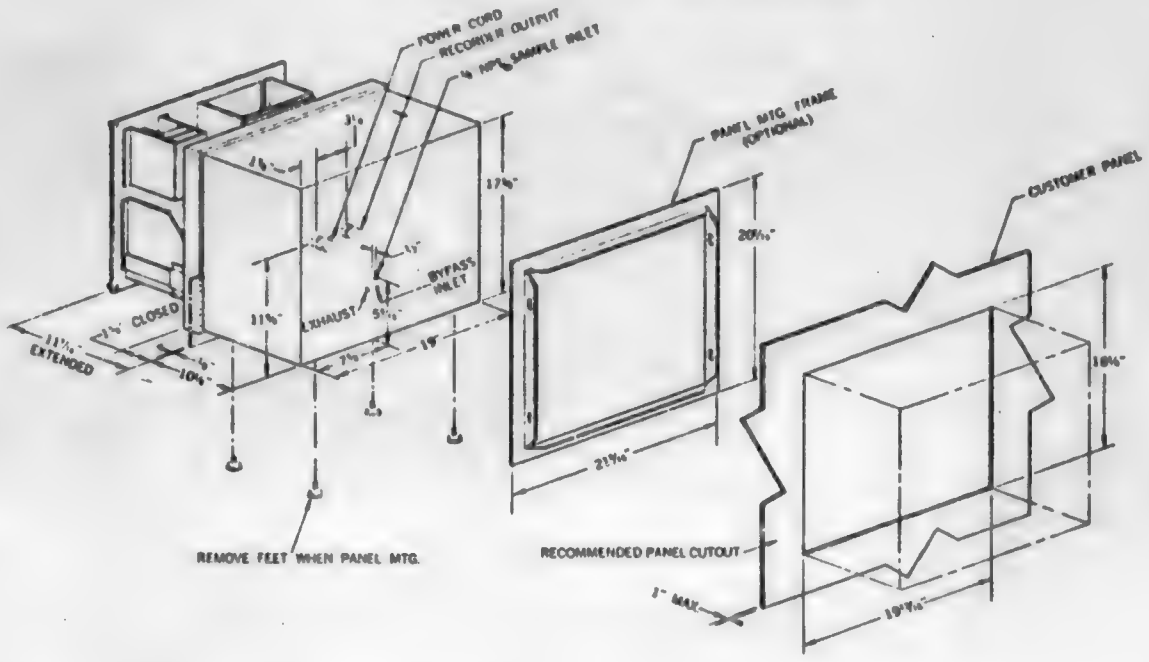


FIGURE 8. OPERATING CONTROLS

CONTROLS

1. **Power** switch controls electrical power to the instrument.
2. **Range** selector permits selection of desired full scale range —0-0.5, 0-1.0, 0-2.0, or 0-4.0 ppm SO_2.
3. **Inlet Selector** when placed at ZERO brings SO_2-free air to the detector for standardization purposes; when placed at SAMPLE brings ambient air to the detector for SO_2 measurement.
4. **Zero Adjust Control** is used to adjust the residual background current.
5. **Flow Control** sets the flow rate of gas supplied to the detector which is normally 150 cc/min.
6. **Mechanical Meter Zero Adjust Screw** is a mechanical adjustment to set the meter pointer to read zero.

OUTLINE AND MOUNTING DIMENSIONS



SPECIFICATIONS

Range:	0-0.5, 0-1.0, 0-2.0, and 0-4.0 ppm by volume selectable with front panel mounted switch
Minimum Detectable Limit:	0.02 ppm
Response Time:	4 minutes to 90% of ultimate signal
Accuracy:	±5% of full scale
Stability:	4% of full scale (peak to peak) per 24 hours
Output Signal Standard:	Indicating meter and potentiometric output of 10, 100 and 1,000 mv
Ambient Temperature Range:	40° to 100°F
Ambient Humidity:	To 90% relative humidity
Power Required:	50 or 60 Hz, 115 v-ac, 200 watts maximum
Specificity:	A concentration of 1 ppm of each of the listed typical interferents will indicate the following maximum signal errors in the SO_2 reading:

Ozone	0.10 ppm
Hydrogen sulfide	0.10 ppm
Mercaptans	0.10 ppm
Organic sulfides	0.10 ppm
Oxides of nitrogen	0.03 ppm
Ammonia	0.01 ppm

Dimensions:	18" high x 19" wide x 11" deep; case suitable for bench, wall, or panel mounting
Shipping Weight:	76 lbs.

NOTE: Specifications subject to change without notice.

HOW TO ORDER

The Beckman 906A may be ordered from your nearest Beckman Sales Office, or directly from Beckman Instruments, Inc., 2500 Harbor Blvd., Fullerton, California 92634.

For recommendations on special applications, return Stream Analysis Form EH-4507 or contact your Beckman Sales Representative to discuss your specific requirements.

ADDITIONAL INFORMATION

Beckman provides a variety of air quality monitoring instruments and related systems. Such instrumentation includes:

Air Quality Analyzers—Utilize the technique of secondary coulometry in combination with selective scrubbers to provide specific, continuous, and accurate determinations of the atmospheric concentrations of SO_2, total oxidants, and nitrogen dioxide.

Air Quality Chromatograph—Through the Chromatographic method of analysis this single instrument monitors three air pollutants—carbon monoxide, methane, and total hydrocarbons from 0-1 ppm full scale for each component.

Non-Dispersive Infrared Analyzer—Long pathlength NDIR instruments sensitized to CO commonly used for ambient air monitoring.

Beckman Vehicle Emission Analysis System—An integrated system which determines the concentration of carbon monoxide, carbon dioxide, and hydrocarbons in automobile exhaust.

Beckman Model 82 Data Processor for Vehicle Emissions Analysis—Developed for simultaneous use with either one or two Beckman Vehicle Emissions Analysis Systems, it reduces the complex data obtained during tests to accurate, meaningful results in minutes.

Total Hydrocarbon Analyzer—Utilizes the hydrogen flame ionization principle to detect and measure trace concentrations of total hydrocarbons in the atmosphere.

Mobile Air Quality Laboratories—Fully equipped, motorized truck vans and trailers for monitoring air quality over an extended area.

Individual brochures describing these instruments are available upon request.

#7310

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon 97310

DATE July ~~26~~ 31, 1974

TO H. S. Coulter
Asst. State Highway Engineer

FROM John C. Jenkins
Engineer of Materials

SUBJECT Fremont Bridge Paint Problem

The last couple of weeks before Dean Mandrell's employment with the State terminated on May 31, 1974, were spent reviewing some data supplied by Canron's attorney. Dean had not finished at the time his employment ended so he put in some additional time to complete his report:

June 1	-	6 hours
June 2	-	4 "
June 3	-	2 "
June 8	-	3 "
Total		15 hours

How may we compensate him for this time?

JCJ:gs

7-31-74

Jenkins—
Have Mandrell submit an invoice for services rendered (with description of work done—dates—hours, etc.) at appropriate hourly rate and write an F.P.O. to cover. Dick Hacek in Finance says they will pay on that.

RECEIVED
JUL 29 1974
Office of
Assistant State Highway Engineer

#7310

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Region 1 - Milwaukie

August 20, 1974

FROM: EDWARD L. HARDT
Regional Engineer

SUBJECT: FREMONT BRIDGE IMPACT CLAIMS

TO:

A. E. JOHNSON	ROBERT SHOTWELL
JOHN LEAHY	ROBERT CUNNINGHAM
JOHN JENKINS	CHARLES LOBAUGH
JOHN HOWARD	JACK DAVIS

Countermanding all previous letters and phone calls on the subject, the meeting to discuss the current status of the contractor's Impact claims on the East and West Fremont Interchange projects has now been scheduled for August 28 at 2 PM in the small conference room in the Salem Highway Building. All addressees are still requested to attend.

ELH/cr
cc H. S. Coulter
R. N. Bothman
A. C. Harwood
W. J. Hart
H. A. Schell, FHWA

NOTED
A. E. JOHNSON

NOTED
F. B. KLABOE

RECEIVED
STATE HWY ENGR
AUG 21 '74
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

7310 101 C

5

FORM E-90 (REV. 10-60)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

September 6, 1973

SUBJECT: Fremont Approaches
Contractor's Claims

To: A. E. Johnson
Deputy State Highway Engineer

FROM: E. L. Hardt
Construction Field Engineer

Attached you will find a letter dated September 4 from John Clough who has been assigned from the Attorney General's office to assist us with the Fremont Bridge claims. This letter is in the form of a request to do some outside investigation of Canron.

Your approval of this request is recommended. If this request is approved, our Accounting Section should be notified.

RECEIVED
STATE HWY ENGR
SEP 12 '73
REFER TO
FOR
Info | Inves | R/D | C/R | Sign | Act | File

APPROVED
DEPUTY STATE HIGHWAY ENGINEER
Date 9-13-73

ELH:fw

Enc.

Orig. Ed Hardt
cy Hunter
Hall Hank
Vern Hoag
Files
9-13-73

DEPARTMENT OF JUSTICE

Memorandum

TO: Mr. Ed. Hardt, Bridge Section
Highway Building

DATE: September 4, 1973

FROM: Mr. John H. Clough, Assistant Attorney General
Department of Justice

SUBJECT: Fremont Bridge Case

Pursuant to our discussion of today concerning the investigation required in the above matter, I am by this memo requesting that I be authorized to purchase services from Retailers Commerical Agency in Portland, Oregon, for a background investigation on Canron Limited in Vancouver, British Columbia. My experience with Retailers has been that their investigations are thorough. They charge by the hour and the rates that I have obtained were $10.75 an hour for work done in Vancouver, British Columbia, and $11.50 an hour for work done in the Portland office. In all, such a background study should be kept within $100 to $150. I would request that Retailers do a complete run down on the corporation including its background, work experience, the nature of business and particularly how frequently the Canron jumps the category of being a material man's supplier to be a subcontractor for painting on the steel girders that it produces. I would also request that complete financial data of the corporation be obtained, the corporate structure, i.e., who are parent or subsidiary corporations, if any; who are the officiers and key personnel and what other positions they hold and a complete backgound investigation on certain key people including but not limited to Terry Lawry and Bruce Jackson, who are presently the individuals that we are dealing with in the above matter. Such investigation would also disclose any other lawsuits on similar problems.

Such information is beyond the reach of any investigative staff that we have, which there is none and personnel that may be presently employed by Highway. I regard this as a necessary step towards the successful defense of the above potential lawsuits.

ph

#7310

NO. ED
U. S. [illegible]

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

August 20, 1973

TOM McCALL
GOVERNOR

F. B. Klaboe
Administrator of Highways

Mr. John H. Clough
Assistant Attorney General
Justice Department
State Office Building
Salem, OR 97310

NOTED
A. E. JOHNSON

Dear Mr. Clough:

East and West Fremont Interchanges
Inorganic Zinc Paint Investigation

To help in your review and investigation of the documents connected with the inorganic zinc paint problem on the Fremont Interchanges, listed below are the cast of characters who were involved when the work was going on. There may be others whom I have overlooked; however, this will give you a running start at the personnel involved.

The contractor for the East Fremont was a joint venture of Drake and Willamette, the jobs superintendents were Bill Bugge and later Jack Gray. The principals involved were R. E. (Smoky) Grant and Franklin Grant. For the West Fremont Interchange the joint venture was Andersen-Hannan. The job superintendent was Ralph Hannan and Bob Everitt and H. A. Andersen represented the main office.

Canron Ltd. of Vancouver, British Columbia, who did the steel fabrication and painting, was represented principally by Terry Lawry and Dick Davies.

The paint supplier, Enjay Chemical Co. (now Exxon), was represented while the work was going on, by Don Bozman, Don Blue and Leonard Grover. During the course of my current investigation I have talked to Frank Koehler and John Owen.

Pittsburgh Testing Laborato[illegible], who contracted out our inspection in the Vancouver plant, was represented by the Portland manager, Don Scott, and by the lead inspector in the fabricating plant, Ken Peterson.

The Oregon Highway Division was represented in one way or another by the following:

Tom Edwards, Deputy Highway Engineer, called the important shots from Salem headquarters.

A. E. Johnson, Assistant Highway Engineer, Tom Edwards' contact with the Region office and field offices.

Ivan Merchant, Bridge Engineer during the formulation of the project and the work now under controversy. He has since retired but is available in Salem.

Walter Hart, current Bridge Engineer, has little knowledge of the actual field conditions under discussion.

Jack Davis, an assistant in the Bridge Section who has done some research on paint and is knowledgeable about some of our other painting problems.

John Jenkins, Materials Engineer. The Materials Section has the prime responsibility for inspection and approval of materials used on projects.

Jim Chidsey, Structural Quality Engineer under Jenkins. Chidsey has recently been transferred to the Utility Liaison Engineer's post in the headquarters building and is available for discussions.

Don Beecroft has taken over Jim Chidsey's position.

Dean Mandrell, Highway Division's paint expert, works in the Materials Laboratory under Beecroft and Jenkins.

Robert L. Schroeder was Metropolitan Region Engineer during the time the work was being done.

H. S. Coulter, succeeded Schroeder after the work was principally over.

Ed Hardt, Assistant Metropolitan Engineer during the time the work was being done in Portland, contact man between the field offices and the Salem headquarters.

Robert Shotwell, Resident Bridge Engineer on the East Fremont project.

Chuck Lobaugh, Shotwell's assistant. Lobaugh was used late last year as a coordinator for Leonard Lindas to help him assemble the data and information that Leonard needed to handle the case.

John Howard, Resident Bridge Engineer for the West Fremont Work.

Robert Cunningham, Resident Bridge Engineer on the Fremont Superstructure contract.

Representing the Federal Highway Administration during the time the work was going on, were Herb Schell, Bridge Engineer; Bob Pillsbury, Schell's assistant; and Cliff Christianson and Wally Bryant, area engineers assigned to the Metro Region.

If you have any questions regarding the people listed above, their qualifications, experience, whatnot, please ask.

Very truly yours,

C. T. Keasey
Construction Engineer
By ORIGINAL SIGNED
EDWARD L. HARDT
Edward L. Hardt
Construction Field Engineer (Bridge)

ELH:dh

cc A. E. Johnson

RECEIVED
STATE HWY ENGR
AUG 20 73
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

I-405-8(23) E. Fremont Interch. Sec., of 1971
304 Stadium Frwy., in Portland
#7311 (Unit B) Folder #3

7311 11-3-77

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

cc: OSHD (H.S. Coultor)
Wash Dc (HHO-32)

FINAL ACCEPTANCE REPORT

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	32	Multnomah	Oregon
DATE OF REPORT	**REPORT MADE BY**		**PROJECT NO.**
11-3-77	C.T. Christianson, Area Engr		I-405-8(22-24)304
COMPLETION DATE	**ACCEPTANCE DATE BY CONTRACT AGENCY**	**TIME ELAPSED**	**CONTRACT TIME**
See Below	See below	See below %	See below
APPROVED EXTENSIONS	**LOCATION**		
See Below	Junction of I-5 and I-405 (North End), Portland		

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

PROJECT NO.	CONTRACT NO.	COMPLETED	OSHD ACCEPTANCE
I-405-8(22)304	7298	5-5-70	5-12-70
I-405-8(22)304	7310	11-28-72	7-5-73
I-405-8(23)304	7311	5-25-73	7-5-73 11-10-77
I-405-8(24)304	7312	11-28-72	2-2-73 WJK

PROJECT NO.	CONTRACT TIME	APPROVED EXT.	TIME USED
I-405-8(22)304	spec.date 12-31-69	to 3-5-70	comp.5-5-70
I-405-8(22)304	755 CD	210	949
I-405-8(23)304	755 CD	210	900
I-405-8(24)304	660 CD	210	943

RECEIVED
STATE HWY ENGR
NOV 10 '77
REFER TO
FOR
Init. | Insp. | R.O. | D.R. | Sec. | Act. | Cor.

EAST FREMONT INTERCHANGE
STADIUM FREEWAY
Grading, Paving, Structures and Traffic Control Devices

Based on a final inspection on 11-29-72, this set of projects was accepted subject to satisfactory resolution of problems encountered with the paint system. These problems are now resolved to the mutual satisfaction of all parties involved. Since all of these projects were awarded to the same contractor and were under the direction of the same Resident Engineer, they have been handled as one.

COPY SENT
NOV 9 1977
LD Shingleton

*NOTE: Not applicable for direct federal projects.

-more-

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE C.T. Christianson		SIGNATURE E. J. Valach — Original signed by E. J. Valach Dist. Engineer	
TITLE Area Engineer	DATE 11-3-77	TITLE District Engineer	DATE 11-3-77

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

There were no significant changes in project costs as noted by the following tabulation:

CONTRACT	ORIGINAL AUTH	FINAL COST
7298	$ 144,453.72	$ 143,491.37
7310	13,928,737.75	14,065,500.00
7311	9,458,459.11	9,458,944.48
7312	2,218,093.60	2,160,000.00

These figures include engineering and contingencies.

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS

(PPM 20-2 and PPM 40-4)

ALL — *To be completed by Washington Headquarters Personnel*

PART A *(To be completed by FHWA or State Highway Personnel (See instructions on reverse))*

STATE	COUNTY	FEDERAL PROJECT NO.	URBAN / RURAL
Oregon	Multnomah	I-405-8(22)304; (23)304; (24)304	URBAN (X) RURAL ( )

CARD A	ITEM	DESCRIPTION	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY (Over 20 ft.)	DATE STARTED
		CONSTRUCTION TYPE CODES				September 26, 1969
	20	FINAL CONSTRUCTION COST	DOL.	1,546,500	22,826,100	DATE COMPLETED: November 28, 1972
	21	LENGTH OF PROJECT	MILES	-	0.353	TOTAL NO. BRIDGES: 3

PART B *(To be completed by contractor - See instructions on reverse) (REMARKS: Attach plain sheet of paper)*

30	LABOR	TOTAL MAN HOURS: 540,601	GROSS EARNINGS: 5,173,911	

CARD B	22	TOTAL COST OF ALL MATERIALS AND SUPPLIES	DOL.	485,277	15,918,777
	9	PETROLEUM PRODUCTS	GAL.	24,166	146,482
	1	CEMENT	BBL.	-	900
CARD C	2	AGGREGATES PURCHASED	TON.	10,622	3,827
	92		CU. YD.	-	-
	3	BITUMINOUS MATERIAL	GAL.	1,440	-
	4	LUMBER	MFBM.	11	1,361
CARD D	5	TIMBER PILING	LIN. FT.	-	13,444
	7	REINFORCING STEEL	LB.	180,108	10,472,227
	8	STRUCTURAL STEEL	LB.	-	31,679,424
	10	EXPLOSIVES	LB.	-	-
CARD E	11	READY-MIXED CONCRETE	CU. YD.	2,953	46,563
	12	PREMIXED BITUMINOUS PAVING MATERIALS	TON	13,623	-
	15	AGGREGATES PRODUCED	TON	-	-
	95		CU. YD.	-	-
CARD F	16	MISCELLANEOUS STEEL	LB.	44,678	115,639
	17	FENCING	LIN. FT.	3,770	-
	18	GUARDRAIL	LIN. FT.	4,126	-
	19	BRIDGE RAIL	LIN. FT.		23,203
CARD G	23	FINAL CONTRACT AMOUNT FOR SIGNS	DOL.	46,520	46,300
	24	FINAL CONTRACT AMOUNT FOR LIGHTING	DOL.	75,930	80,000

Blocks 48-70 to be completed by FHWA Washington Headquarters Personnel

48 — 52	53 — 61	62 — 70

CARD H — CULVERT ITEMS

ITEM	SIZE (In.)	LGTH. (Lin. ft.)
6	CORRUGATED STEEL CULVERT	
	6	372
	8	5,898
	12	481

CARD J

ITEM		
13	CONCRETE PIPE	
	8	3,664
	10	53
	12	5,349
	15	1,531
	21	376
	24	107

CARD K

ITEM		
14	CLAY PIPE AND DRAIN TILE	

CARD L

ITEM		
25	CORR. ALUMINUM CULVERT	

CARD M

ITEM		
26	CAST IRON PIPE	

FORM PR-47 (REV. 3-72) PREVIOUS EDITIONS ARE OBSOLETE

FORM PR-47
(REV. 3-67)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

BUDGET BUREAU NO. 41-R2274
APPROVAL EXPIRES SEPTEMBER 1, 1972

STATEMENT OF MATERIALS AND LABOR USED BY CONTRACTORS ON HIGHWAY CONSTRUCTION INVOLVING FEDERAL FUNDS

(PPM 20-2 and PPM 40-4)

STATE Oregon
STATE CODE [1]

COUNTY Multnomah (U)[2]

FEDERAL PROJECT NO. I-405-8(22)304

PART A *(To be completed by Bureau of Public Roads or State Highway personnel - See instructions on reverse)*

ITEM		ROADWAY	BRIDGES (Over 20 ft.)	DATE STARTED
	CONSTRUCTION TYPE CODE			9-22-69
20	FINAL CONSTRUCTION COST	$ 131,934	$	DATE COMPLETED 3-5-70
21	LENGTH OF PROJECT	- MI.	MI.	TOTAL NO. BRIDGES

PART B *(To be completed by contractor - See instructions on reverse)*

ITEM	MATERIALS AND SUPPLIES	UNIT	ROADWAY QUANTITY	BRIDGE QUANTITY
1	CEMENT	BBL.	23	
2	AGGREGATES PURCHASED	~~TON~~ / CU. YD.	661	
3	BITUMINOUS MATERIAL	GAL.		
4	LUMBER	MFBM	3	
5	TIMBER PILING	LIN. FT.		
7	REINFORCING STEEL	LB.	8,073	
8	STRUCTURAL STEEL	LB.		
11	READY-MIXED CONCRETE	CU. YD.	212	
12	PREMIXED BITUMINOUS PAVING MATERIALS	TON	177	
15	AGGREGATES PRODUCED	~~TON~~[3] / CU. YD.		
16	MISCELLANEOUS STEEL	LB.	24,564	
17	FENCING	LIN. FT.		
18	GUARDRAIL	LIN. FT.		
19	BRIDGE RAIL	LIN. FT.		
9	PETROLEUM PRODUCTS	GAL.		
10	EXPLOSIVES	LB.		
22	TOTAL COST OF ALL MATERIALS AND SUPPLIES	DOL.	43,702	
23	FINAL CONTRACT AMOUNT FOR SIGNS	DOL.		
24	FINAL CONTRACT AMOUNT FOR LIGHTING	DOL.		

		TOTAL MAN HOURS	GROSS EARNINGS
30	LABOR	5,855	34,156

CULVERT ITEMS

ITEM	SIZE (Inches)	LENGTH (Lin. ft.)
6	CORRUGATED STEEL CULVERT	
13	CONCRETE PIPE	
	4	626
	6	345
	8	217
14	CLAY PIPE AND DRAIN TILE	
25	CORR. ALUMINUM CULVERT	
26	CAST IRON PIPE	
	2	210
	3	125
	4	320
	6	360

[1] By BPR. [2] Insert "U" or "R" for Urban or Rural. [3] Strike out unit not applicable.

EDITION OF 9-66 MAY BE USED

(Remarks: Attach plain sheet of paper)

USCOMM-DC 15941-P67

7311

October 31, 1977

TO G. L. Green, Division Administrator
Federal Highway Administration

Federal-aid Project
No. I-405-8(23)304

FROM C. T. Keasey
Construction Engineer

SUBJECT Request Federal-aid Project Acceptance

Contract 7311, Work Completed May 25, 1973

Project East Fremont Interchange, Unit "B"

Highway Stadium Freeway

County Multnomah

Acceptance: Federal Highway Administration November 29, 1972

Transportation Commission July 5, 1973

All participating work on this project has been completed.

The data listing below, a requirement of your acceptance of the project, is attached.

*Statement of Materials & Labor, Form PR 47 (3 copies)
Laboratory Materials Certification
Statement of Overruns and Underruns
Progress Estimate and Cost Report, Form E-498

*PR 47 submitted with request for project acceptance of I-405-8(22)304, covers this project and I-405-8(24)304

DLC:psp

cc: C. T. Keasey
R. Hacek
R. D. Church

7811

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	Form Approved; O M B No. 04-R2089
MONTHLY TRANSACTION NUMBER		State: Oregon
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County: Multnomah
MODIFICATION NUMBER: 2	1-27-77	Project Number: I-405-8(23)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on September 25, 19 69, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 9,391,387	$ 9,777,355
Federal funds	$ 8,658,000	$ 9,019,609
Other revisions		

This modification is made for the following reasons:

To include final claim settlement and litigation expense.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 27th day of January, 19 77.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By E Hunter

Deputy State Highway Engineer
(Title)

By _____

_____
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By G. L. Green
(Division Administrator)
for: G. L. Green

Form PR-2A (Rev. 10-75) Previous editions are obsolete 68717

Gen file

Oregon State Highway Division
Salem, Oregon January 25, 1977

Federal Aid Project
No. I-405-8(23)304

E. Fremont Interchange (Unit "B")Section
Stadium Freeway in Multnomah County

Revised Project Agreement Estimate.

Type Code X971
Bridge No. 8958-2 (Sta. 327+54 to Sta. 332+57)(Contract 7311)

Subtotal on previous estimate of December 26, 1969		$8,819,386.64
Additional Approved Items		
Final Contract Claim Settlement	Lump Sum (43%)	$ 340,130.00
SFO Work Required for Litigation	All Required (43%)	45,838.00
	Increase	$ 385,968.00
	Subtotal	$9,205,354.64
	Engineering	572,000.36
	TOTAL	$9,777,355.00

Length of Structure - - - - - - - - - - 0.095 mile

Federal Funds - - - - - - - - - - - - -	$9,019,609.00
State Funds - - - - - - - - - - - - - -	757,746.00
TOTAL	$9,777,355.00

Group 1 - 98% Group 9 - 2%
Prefix: 626-1018
Contract No.: 7311

STATE COPY

Monthly transaction number: 1-70	(Rev. 10-68) DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION BUREAU OF PUBLIC ROADS	State: Oregon
Project report number: 6	**MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT** (PPM 21-7) 1-12-70	County: Multnomah
Modification number: 1		Project number: I-405-8(23)304

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Engineer on September 25, 1969, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 9,910,093	$ 9,391,387
Federal funds	$ 9,142,000.00	$ 8,658,000.00
Other revisions		

This modification is made for the following reasons:

Based on revised project agreement estimate.

All other terms and conditions of the Project Agreement will remain in full force and effect.

This modification is effective as of the 12th day of January, 1970.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By _____

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

By _____
(Division Engineer)

For: R. E. Simpson

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(23)304

E. FREMONT INTERCHANGE (UNIT "B") OF THE
STADIUM FREEWAY IN MULTNOMAH COUNTY

Revised Project Agreement Estimate

Salem, Oregon, December 26, 1969

Type Code X971
Bridge No. 8958-2 (Sta. 327+54 to Sta. 332+57) (Contract No. 7311)
Roadway

Temporary Protection and Direction of Traffic	All Required (85%)		
Clearing and Grubbing	All Required (80%)		
General Excavation, Unclassified	79,000 cu.yd.	0.94	74,260.00
Finishing Roadbed and Slopes	All Required (55%)		
Trench Excavation	5,560 cu.yd.	6.00	33,360.00
Special Backfill in Drains	6 cu.yd.	20.00	120.00
Watering	440 M-gal.	4.00	1,760.00
Pavement Replacement	240 lin.ft.	10.00	2,400.00
Tractor and Dozer	62 hr.	28.00	1,736.00
Loader Front End	62 hr.	21.00	1,302.00
Dump Truck	122 hr.	13.00	1,586.00
Motor Grader	41 hr.	16.00	656.00
3/4" - 0 Material in Leveling Course	510 cu.yd.	2.90	1,479.00
Plant-Mix Stone Base	4,150 ton	2.90	12,035.00
Cement-Treated Base Mixture	560 ton	5.00	2,800.00
Portland Cement in CTB Mixture	28 ton	30.00	840.00
RS-1 Asphalt in Seal	0.3 ton	150.00	45.00
Bituminous Base Mixture	3,800	6.00	22,800.00
Asphalt in Bituminous Base Mixture	180 ton	30.00	5,400.00
3/4" - 0 Aggregate in Prime Coat	50 cu.yd.	6.50	325.00
RC-250 Asphalt in Prime Coat	7 ton	75.00	525.00
Class "B" Asphalt Concrete	2,120 ton	7.40	15,688.00
8-inch Continuously reinforced Concrete Pavement	2,000 sq.yd.	11.50	23,000.00
8-inch Reinforced Concrete Pavement	110 sq.yd.	18.00	1,980.00
12-inch Reinforced Concrete Bridge End Panels	280 sq.yd.	18.00	5,040.00
Pavement Terminal Anchors	100 lin.ft.	16.00	1,600.00
Class "A" Concrete in Sewers	32 cu.yd.	50.00	1,600.00
Reinforcement in Sewers	1,500 lb.	0.20	300.00
8-inch Storm Sewer Pipe	1,000 lin.ft.	3.00	3,000.00
12-inch Storm Sewer Pipe	2,840 lin.ft.	5.00	14,200.00
15-inch Storm Sewer Pipe	1,580 lin.ft.	7.00	11,060.00

12-inch Sanitary Sewer Pipe	670 lin.ft.	6.00	4,020.00
6-inch Drain Pipe	90 lin.ft.	3.00	270.00
Concrete Manholes	16 only	500.00	8,000.00
Concrete Inlets, Type B	20 only	200.00	4,000.00
Concrete Inlets, Type G-1	7 only	150.00	1,050.00
Concrete Inlets, Type CG-1	3 only	175.00	525.00
Concrete Inlets, Type P	3 only	125.00	375.00
Curb Inlets	2 only	125.00	250.00
Concrete Slope Protectors	1 only	250.00	250.00
Adjusting Manholes	1 only	150.00	150.00
Capping Manholes	1 only	150.00	150.00
Capping Inlets	1 only	150.00	150.00
Concrete Curbs	155 cu.yd.	61.00	9,455.00
Concrete Islands	10 cu.yd.	55.00	550.00
Concrete Walks	566 sq.yd.	7.40	4,188.40
Extra for A.C. Concrete Walks	1,900 sq.yd.	1.35	2,565.00
Guide Posts, Y-2	15 only	10.00	150.00
Guard Rail, Type 1	275 lin.ft.	3.00	825.00
Guard Rail, Type 2A	1,600 lin.ft.	4.50	7,200.00
Guard Rail Terminal Anchors	7 only	225.00	1,575.00
Extra for Guard Rail Bridge Connection	5 only	150.00	750.00
Painting Metal Rail Members	1,875 lin.ft.	0.15	281.25
6' Chain Link Fence	2,400 lin.ft.	2.02	4,848.00
6' x 12' Chain Link Gates	2 only	130.00	260.00
Roadside Seeding	16 acre	100.00	1,600.00
Roadside Mulching	16 acre	150.00	2,400.00
Seed Mixture	480 lb.	0.80	384.00
Inorganic Fertilizer, 22-16-8-2S	64 cwt.	11.00	704.00
Traffic Control Devices			
Sign Support Footing	All Required (75%)		
Sign Bridge Structure	All Required		13,970.00
Sign Illumination Equipment	All Required (67%)		
Painted Wood Sign Posts	All Required (14%)		
Type "A" Signs in Place	168 sq.ft.	9.00	1,512.00
Type "C" and "D" Signs in Place	32 sq.ft.	5.00	160.00
Illumination Installation, Complete	All Required (83%)		48,970.00
Structure			
Shoring, Cribbing, Etc.	All Required		199,025.00
Structural Excavation	7,500 cu.yd.	3.50	26,250.00

Structural Excavation Below Elevation Shown	720 cu.yd.	3.50	2,520.00
Special Backfill for Abutments	140 cu.yd.	6.00	840.00
Furnish Treated Timber Piling	3,590 lin.ft.	1.30	4,667.00
Furnish 14 BP 73 Steel	39,500 lin.ft.	6.00	237,000.00
Drive Timber Piles	80 only	93.00	7,440.00
Drive Steel Piles	620 only	105.00	65,100.00
Splice Steel Piles	375 only	35.00	13,125.00
Drilling Pile Holes	170 lin.ft.	10.00	1,700.00
Class "A" Concrete (15,729 cu.yd.)	All Required		1,331,147.00
Reinforcement (2,989,400 lb.)	All Required		359,358.00
Structural Steel (8,740,800 lb.)	All Required		6,389,378.00
Metal Parapet Railing	10,376 lin.ft.	7.50	77,820.00
8-inch PVC Pipe	2,100 lin.ft.	8.50	17,850.00
Preparation of Slopes	900 sq.yd.	0.90	810.00
Slope Paving	900 sq.yd.	12.50	11,250.00
Dry Fire Mains	All Required		1,442.00
			$ 9,316,842.35
Contractor's Lump Sum Reduction	All Required		(518,705.71)
Flagging (60% of Contractor's Cost)	All Required (85%)		21,250.00
	Subtotal		$ 8,819,386.64
	Engineering		572,000.36
	Total		$ 9,391,387.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Bridge	$9,391,387.00	$8,658,000.00	$733,387.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920; Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1 - 98%
Group 9 - 02%
Prefix 626-1018

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(23)304

E. FREMONT INTERCHANGE (UNIT "B")
NONPARTICIPATING - STATE WORK

Temporary Protection and Direction of Traffic	All Required (15%)		$ 1,557.60
Clearing and Grubbing	All Required (20%)		47,531.20
General Excavation, Unclassified	8,000 cu.yd.	0.94	7,520.00
Finishing Roadbed and Slopes	All Required (45%)		
Trench Excavation	1,000 cu.yd.	6.00	6,000.00
Watering	460 M-gal.	4.00	1,840.00
Pavement Replacement	130 lin.ft.	10.00	1,300.00
Tractor and Dozer	4 hour	28.00	112.00
Loader, Front End	4 hour	21.00	84.00
Dump Truck	8 hour	13.00	104.00
Motor Grader	3 hour	16.00	48.00
3/4" - 0 Material in Leveling Course	290 cu.yd.	2.90	841.00
Plant-Mix Stone Base	3,450 ton	2.90	10,005.00
Bituminous Base Mixture	4,000 ton	6.00	24,000.00
Asphalt in Bituminous Base Mixture	200 ton	30.00	6,000.00
3/4" - 0 Aggregate in Prime Coat	60 cu.yd.	6.50	390.00
RC-250 Asphalt in Prime Coat	10 ton	75.00	750.00
Class "B" Asphalt Concrete	2,080 ton	7.40	15,392.00
8-inch Storm Sewer Pipe	280 lin.ft.	3.00	840.00
12-inch Storm Sewer Pipe	940 lin.ft.	5.00	4,700.00
15-inch Storm Sewer Pipe	320 lin.ft.	7.00	2,240.00
Concrete Manholes	4 only	500.00	2,000.00
Special Manhole	1 only	3,000.00	3,000.00
Concrete Inlets, Type G-1	4 only	150.00	600.00
Concrete Inlets, Type P	5 only	125.00	625.00
Capping Manholes	1 only	150.00	150.00
Concrete Curbs	115 cu.yd.	61.00	7,015.00
Concrete Driveways	70 sq.yd.	8.90	623.00
Concrete Walks	34 sq.yd.	7.40	251.60
Extra for A.C. Concrete Walks	1,500 sq.yd.	1.35	2,025.00
Guide Posts, Y-2	29 only	10.00	290.00
Guard Rail, Type 1	225 lin.ft.	3.00	675.00
Median Barrier	550 lin.ft.	6.50	3,575.00
Painting Metal Rail Members	1,325 lin.ft.	0.15	198.75
6' Chain Link Fence	1,500 lin.ft.	2.02	3,030.00
Roadside Seeding	4 acre	100.00	400.00
Roadside Mulching	4 acre	150.00	600.00

Seed Mixture	120 lb.	0.80	196.00
Inorganic Fertilizer, 22-16-8-2S	16 cwt.	11.00	176.00
Signing			
Sign Support Footings	All Required (25%)		1,287.50
Double Cantilever Sign Structure	All Required		4,620.00
Sign Illumination Equipment	All Required (33%)		990.00
Painted Wood Sign Posts	All Required (86%)		688.00
Type "A" Signs in Place	154 sq.ft.	9.00	1,386.00
Type "C" and "D" Signs in Place	179 sq.ft.	5.00	895.00
Type "E" and "M" Signs in Place	48 sq.ft.	6.00	288.00
Thermoplastic Pavement Arrows	6 only	100.00	600.00
Illumination Installation, Complete	All Required (17%)		10,030.00
Pedestrian Signal Installation	All Required		5,100.00
			$ 184,719.65
Flagging (60% of Contractor's Cost)	All Required (15%)		3,750.00
RS-1 in Tack Coat	All Required (15%)		30.00
			$ 3,780.00
			$ 188,499.65

STATE COPY

Approved; Budget Bureau No. 41-R2099.1

MONTHLY TRANSACTION NO.	FORM PR-2 (REV. 3-66) U.S. DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS	STATE
9-66		Oregon
PROJECT REPORT NO.	FEDERAL-AID PROJECT AGREEMENT (PPM 21-7) 9-25-69	COUNTY Multnomah
5		PROJECT NO. I-405-8(23)304

The State, through its Highway Department, having complied, or hereby agreeing to comply, with the terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto by the Secretary of Commerce and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Bureau of Public Roads having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Bureau of Public Roads authorization to proceed with the project involving such costs.

PROJECT TERMINI

E. Fremont Interchange (Unit "B") of the Stadium Freeway

PROJECT CLASSIFICATION OR CLASS OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	7-16-69	0.095
OTHER (Specify)		

FUNDS Pro rata 92.25%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 9,910,093	$ 9,142,000.00

The State further stipulates that pursuant to said Title 23, Regulations, and policies and procedures, and as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Department)

By L. H. Edwards

Assistant State Highway Engineer
(Title)

By _____

(Title)

By _____

(Title)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF PUBLIC ROADS

By L. K. Green
(Division Engineer)

For R. E. Simpson

Date executed by Division Engineer SEP 25 1969

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

USCOMM-DC 26854-P66

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(23)304

E. FREMONT INTERCHANGE (UNIT "B") OF THE
STADIUM FREEWAY IN MULTNOMAH COUNTY

Project Agreement Estimate

Salem, Oregon, September 18, 1969

Type Code X971
Bridge No. 8958-2 (Sta. 327+54 to Sta. 332+57) (Contract No. 7311)
Roadway

Temporary Protection and Direction of Traffic	All Required (85%)		$ 3,826.40
Clearing and Grubbing	All Required (80%)		190,124.80
General Excavation, Unclassified	79,000 cu.yd.	0.94	74,260.00
Finishing Roadbed and Slopes	All Required (55%)		2,750.00
Trench Excavation	5,560 cu.yd.	6.00	33,360.00
Special Backfill in Drains	6 cu.yd.	20.00	120.00
Watering	440 M-gal.	4.00	1,760.00
Pavement Replacement	240 lin.ft.	10.00	2,400.00
Tractor and Dozer	62 hr.	28.00	1,736.00
Loader Front End	62 hr.	21.00	1,302.00
Dump Truck	122 hr.	13.00	1,586.00
Motor Grader	41 hr.	16.00	656.00
3/4" - 0 Material in Leveling Course	510 cu.yd.	2.90	1,479.00
Plant-Mix Stone Base	4,150 ton	2.90	12,035.00
Cement-Treated Base Mixture	560 ton	5.00	2,800.00
Portland Cement in CTB Mixture	28 ton	30.00	840.00
RS-1 Asphalt in Seal	0.3 ton	150.00	45.00
Bituminous Base Mixture	3,800	6.00	22,800.00
Asphalt in Bituminous Base Mixture	180 ton	30.00	5,400.00
3/4" - 0 Aggregate in Prime Coat	50 cu.yd.	6.50	325.00
RC-250 Asphalt in Prime Coat	7 ton	75.00	525.00
Class "B" Asphalt Concrete	2,120 ton	7.40	15,688.00
8-inch Continuously reinforced Concrete Pavement	2,000 sq.yd.	11.50	23,000.00
8-inch Reinforced Concrete Pavement	110 sq.yd.	18.00	1,980.00
12-inch Reinforced Concrete Bridge End Panels	280 sq.yd.	18.00	5,040.00
Pavement Terminal Anchors	100 lin.ft.	16.00	1,600.00
Class "A" Concrete in Sewers	32 cu.yd.	50.00	1,600.00
Reinforcement in Sewers	1,500 lb.	0.20	300.00
8-inch Storm Sewer Pipe	1,000 lin.ft.	3.00	3,000.00
12-inch Storm Sewer Pipe	2,840 lin.ft.	5.00	14,200.00
15-inch Storm Sewer Pipe	1,580 lin.ft.	7.00	11,060.00

12-inch Sanitary Sewer Pipe	670	lin.ft.	6.00	4,020.00
6-inch Drain Pipe	90	lin.ft.	3.00	270.00
Concrete Manholes	16	only	500.00	8,000.00
Concrete Inlets, Type B	20	only	200.00	4,000.00
Concrete Inlets, Type G-1	7	only	150.00	1,050.00
Concrete Inlets, Type CG-1	3	only	175.00	525.00
Concrete Inlets, Type P	3	only	125.00	375.00
Curb Inlets	2	only	125.00	250.00
Concrete Slope Protectors	1	only	250.00	250.00
Adjusting Manholes	1	only	150.00	150.00
Capping Manholes	1	only	150.00	150.00
Capping Inlets	1	only	150.00	150.00
Concrete Curbs	155	cu.yd.	61.00	9,455.00
Concrete Islands	10	cu.yd.	55.00	550.00
Concrete Walks	566	sq.yd.	7.40	4,188.40
Extra for A.C. Concrete Walks	1,900	sq.yd.	1.35	2,565.00
Guide Posts, Y-2	15	only	10.00	150.00
Guard Rail, Type 1	275	lin.ft.	3.00	825.00
Guard Rail, Type 2A	1,600	lin.ft.	4.50	7,200.00
Guard Rail Terminal Anchors	7	only	225.00	1,575.00
Extra for Guard Rail Bridge Connection	5	only	150.00	750.00
Painting Metal Rail Members	1,875	lin.ft.	0.15	281.25
6' Chain Link Fence	2,400	lin.ft.	2.02	4,848.00
6' x 12' Chain Link Gates	2	only	130.00	260.00
Roadside Seeding	16	acre	100.00	1,600.00
Roadside Mulching	16	acre	150.00	2,400.00
Seed Mixture	480	lb.	0.80	384.00
Inorganic Fertilizer, 22-16-8-2S	64	cwt.	11.00	704.00
Traffic Control Devices				
Sign Support Footing	All Required (75%)			3,862.50
Sign Bridge Structure	All Required			13,970.00
Sign Illumination Equipment	All Required (67%)			2,010.00
Painted Wood Sign Posts	All Required (14%)			112.00
Type "A" Signs in Place	168	sq.ft.	9.00	1,512.00
Type "C" and "D" Signs in Place	32	sq.ft.	5.00	160.00
Illumination Installation, Complete	All Required (83%)			48,970.00
Structure				
Shoring, Cribbing, Etc.	All Required			199,025.00
Structural Excavation	7,500	cu.yd.	3.50	26,250.00

Structural Excavation Below Elevation Shown	720 cu.yd.	3.50	$ 2,520.00
Special Backfill for Abutments	140 cu.yd.	6.00	840.00
Furnish Treated Timber Piling	3,590 lin.ft.	1.30	4,667.00
Furnish 14 BP 73 Steel	39,500 lin.ft.	6.00	237,000.00
Drive Timber Piles	80 only	93.00	7,440.00
Drive Steel Piles	620 only	105.00	65,100.00
Splice Steel Piles	375 only	35.00	13,125.00
Drilling Pile Holes	170 lin.ft.	10.00	1,700.00
Class "A" Concrete (15,729 cu.yd.)	All Required		1,331,147.00
Reinforcement (2,989,400 lb.)	All Required		359,358.00
Structural Steel (8,740,800 lb.)	All Required		6,389,378.00
Metal Parapet Railing	10,376 lin.ft.	7.50	77,820.00
8-inch PVC Pipe	2,100 lin.ft.	8.50	17,850.00
Preparation of Slopes	900 sq.yd.	0.90	810.00
Slope Paving	900 sq.yd.	12.50	11,250.00
Dry Fire Mains	All Required		1,442.00
			$ 9,316,842.35
Flagging (60% of Contractor's Cost)	All Required (85%)		21,250.00
	Subtotal		$ 9,338,092.35
	Engineering		572,000.65
	Total		$ 9,910,093.00

Length of Project 0.095 Mile

Retained in Program Status

RS-1 Asphalt in Tack Coat	All Required (85%)	$ 170.00
	Subtotal	$ 170.00
	10% Engr. & Cont.	17.00
	Total	$ 187.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Bridge	$9,910,093.00	$9,142,000.00	$768,093.00
Retained in Program	187.00	170.00	17.00
	$9,910,280.00	$9,142,170.00	$768,110.00

State Funds for Const.: Chap. 175, Laws 1917; Chap. 31, Laws 1920;
Chap. 529, Laws 1939.
State Funds for Maint.: Chap. 529, Laws 1939.

Group 1 - 98%
Group 9 - 02%
Prefix 626-1018

Oregon State Highway Division

Federal-Aid
Project No. I-405-8(23)304

E. FREMONT INTERCHANGE (UNIT "B")

NONPARTICIPATING - STATE WORK

Temporary Protection and Direction of Traffic	All Required (15%)		$ 1,557.60
Clearing and Grubbing	All Required (20%)		47,531.20
General Excavation, Unclassified	8,000 cu.yd.	0.94	7,520.00
Finishing Roadbed and Slopes	All Required (45%)		2,250.00
Trench Excavation	1,000 cu.yd.	6.00	6,000.00
Watering	460 M-gal.	4.00	1,840.00
Pavement Replacement	130 lin.ft.	10.00	1,300.00
Tractor and Dozer	4 hour	28.00	112.00
Loader, Front End	4 hour	21.00	84.00
Dump Truck	8 hour	13.00	104.00
Motor Grader	3 hour	16.00	48.00
3/4" - 0 Material in Leveling Course	290 cu.yd.	2.90	841.00
Plant-Mix Stone Base	3,450 ton	2.90	10,005.00
Bituminous Base Mixture	4,000 ton	6.00	24,000.00
Asphalt in Bituminous Base Mixture	200 ton	30.00	6,000.00
3/4" - 0 Aggregate in Prime Coat	60 cu.yd.	6.50	390.00
RC-250 Asphalt in Prime Coat	10 ton	75.00	750.00
Class "B" Asphalt Concrete	2,080 ton	7.40	15,392.00
8-inch Storm Sewer Pipe	280 lin.ft.	3.00	840.00
12-inch Storm Sewer Pipe	940 lin.ft.	5.00	4,700.00
15-inch Storm Sewer Pipe	320 lin.ft.	7.00	2,240.00
Concrete Manholes	4 only	500.00	2,000.00
Special Manhole	1 only	3,000.00	3,000.00
Concrete Inlets, Type G-1	4 only	150.00	600.00
Concrete Inlets, Type P	5 only	125.00	625.00
Capping Manholes	1 only	150.00	150.00
Concrete Curbs	115 cu.yd.	61.00	7,015.00
Concrete Driveways	70 sq.yd.	8.90	623.00
Concrete Walks	34 sq.yd.	7.40	251.60
Extra for A.C. Concrete Walks	1,500 sq.yd.	1.35	2,025.00
Guide Posts, Y-2	29 only	10.00	290.00
Guard Rail, Type 1	225 lin.ft.	3.00	675.00
Median Barrier	550 lin.ft.	6.50	3,575.00
Painting Metal Rail Members	1,325 lin.ft.	0.15	198.75
6' Chain Link Fence	1,500 lin.ft.	2.02	3,030.00
Roadside Seeding	4 acre	100.00	400.00
Roadside Mulching	4 acre	150.00	600.00

Seed Mixture	120 lb.	0.80.	96.00
Inorganic Fertilizer, 22-16-8-2S	16 cwt.	11.00	176.00
Signing			
Sign Support Footings	All Required (25%)		1,287.50
Double Cantilever Sign Structure	All Required		4,620.00
Sign Illumination Equipment	All Required (33%)		990.00
Painted Wood Sign Posts	All Required (86%)		688.00
Type "A" Signs in Place	154 sq.ft.	9.00	1,386.00
Type "C" and "D" Signs in Place	179 sq.ft.	5.00	895.00
Type "E" and "M" Signs in Place	48 sq.ft.	6.00	288.00
Thermoplastic Pavement Arrows	6 only	100.00	600.00
Illumination Installation, Complete	All Required (17%)		10,030.00
Pedestrian Signal Installation	All Required		5,100.00
			$ 184,719.65
Flagging (60% of Contractor's Cost)	All Required (15%)		3,750.00
RS-1 in Tack Coat	All Required (15%)		30.00
			$ 188,499.65

7-311

NOTED
H. S. COULTER

RECEIVED
STATE HWY ENGR
JAN 13 '77
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

REPORT OF SETTLEMENT OF CASES OTHER THAN CONDEMNATION

File: L- 7121

R-

To be submitted to Commission: January 18, 1977 Approved by Commission:

Name of Case: Donald M. Drake Co., et al v. State of Oregon County: Marion

Cause of Action: For breach of Contract (Fremont Bridge)

Demands of Plaintiff: $2,289,019.65

Settlement: $791,000.00

Contracts Nos. ~~7210~~ 7310, ~~7211~~ 7311, and ~~7212~~ 7312

REMARKS: This action grew out of the contract to construct the East approach to the Fremont Bridge in Portland. During construction, a major failure of the inorganic zinc primer coat resulted in major repair costs and has a substantial impact on other phases of the work. The contractor also encountered major problems in applying the vinyl topcoat due to bubbling and pinholing. The contractor changed to a vinyl from a different supplier. The problems with vinyl also delayed and impacted other phases of the work.

Two other major problems affected the work. It was necessary to redesign certain Ring Girders during progress of the work. Similar problems caused redesign of the expansion joints. These delays also impacted other phases of the work.

After a lengthy examination of the facts, including an extensive examination of the contractor files and records; a thorough review of the pertinent legal principals; an analysis of the contractor's claimed extra costs and prolonged negotiation with the contractor and his attorneys' we have reached a settlement of $791,00.00. This is subject to the approval of the Federal Highway Administration.

(See the legal file for a detailed justification of settlement and analysis of the contractor's costs.)

Leslie B Hampton
Signed

Walter L Barrie
Assistant Attorney General
and Counsel

cc: File
Walter L. Barrie
L. B. Hampton
XXXXXXXXXX
XXXXXXXXXXX
H. S. Coulter

Init.	Inve.	R/C	D/R	Sign	Act.	File

File: L- 7121

R-

To be submitted to Commission: January 18, 1977 Approved by Commission:

Name of Case: Donald M. Drake Co., et al v. State of Oregon County: Marion

Cause of Action: For breach of Contract (Fremont Bridge)

Demands of Plaintiff: $2,289,019.65

Settlement: $791,000.00

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(See the legal file for a detailed justification of settlement and analysis of the contractor's costs.)

Leslie B Hampton
Signed

Walter L Barrie
Assistant Attorney General
and Counsel

cc: File
Walter L. Barrie
L. B. Hampton
[illegible]
H. S. Coulter
R. W. Ellison
A. C. Harwood

7311

Form FHWA 121 (Rev. 8-73)

UNITED STATES GOVERNMENT

Memorandum

NOTED
H. S. COULTER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 17, 1976

In reply refer to: 1041BR

SUBJECT: Oregon Project I-405-8(22)303
East Fremont Paint Claim

FROM : G. L. Green, Division Administrator

TO Mr. H. S. Coulter, State Highway Engineer

Mr. Hampton's letter of November 19, 1976 requested our review of the claim between Donald M. Drake Co., et al v. State of Oregon East Fremont Interchange Contracts 7210, 7211 and 7212.
7310 7311 7312

We have completed our review and find the entire settlement of $791,000 acceptable for federal participation.

Merry Christmas!

G. L. Green

RECEIVED
STATE HWY ENGR
DEC 20 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

rec'd Coulter 12-21-76

12-21-76 ey Les Hampton

7311

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

NOTED
H. S. COULTER

RECEIVED
STATE HWY ENGR
NOV 22 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sgn | Act | File

November 19, 1976

Mr. Glen L. Green
Division Administrator
Federal Highway Administration
P.O. Box 300
Salem, Oregon 97310

Re: Donald M. Drake Co., et al v. State of Oregon
Marion County Case No. 88-330 (L-7121)
East Fremont Intch.
Contracts 7310, 7311, and 7312

Dear Mr. Green

We are pleased to advise you that the above-mentioned case has been settled with the plaintiff Drake-Willamette for a lump sum payment of $791,000 subject to the approval of the Federal Highway Administration. The settlement has the approval of the Oregon Highway Division, and is recommended to you by Attorney General Lee Johnson.

As you probably know, the plaintiff's complaint alleges their damages to be $2,289,019.65. This case has been subject to prolonged, extensive and detailed investigation and analysis. Negotiations with the contractors and their attorneys have also been prolonged and extensive.

Forwarded herewith, for your consideration is a legal memorandum and justification of settlement, with an attached claim analysis and justification by Allan C. Harwood, construction field engineer. Also enclosed is a copy of Drake-Willamette's revised and restructured claims, which was the basis of the final rounds of negotiation.

Under the terms of settlement, the state will be obligagated to pay interest on any portion of the settlement amount not paid to plaintiff on or before December 21, 1976. Please have the

cy Engineering
Resident Engr.
Region 7
11-23-76

proposed settlement reviewed at your earliest opportunity. We respectfully request your approval of the settlement for federal participation.

Sincerely

Leslie B. Hampton
Assistant Chief Trial Counsel

dlc
Enclosures

cc Honorable Lee Johnson
H. S. Coulter
Walter L. Barrie
A. C. Harwood

M E M O R A N D U M

In Support of Proposed Settlement

Donald M. Drake Co., et al v. State of Oregon
Marion County Case No. 88-330

This case was filed September 18, 1974. Defendant seeks $2,289,019.65 damages for alleged breach of contract and breach of warranty by the State of Oregon. The action grew out of the plaintiff's performance of Contract Nos. 7210, 7211, and 7212, entered into between the State of Oregon (Highway Division) and the plaintiff, a joint venture of the Donald M. Drake Co. and Willamette Western Corporation, two general contracting firms, hereinafter referred to as Drake-Willamette. Under the contracts totaling $23,985,192.00, Drake-Willamette was obligated to construct the East approaches to the Fremont Bridge in Portland, Oregon. The complaint is based on a formal claim submitted by Drake-Willamette on June 6, 1973. A revised and restructured claim was submitted in April, 1976.

After prolonged negotiations Drake-Willamette, represented by attorney Preston C. Hiefield, has agreed to accept in full settlement of their claims the lump sum of $791,000. Drake-Willamette also agreed to satisfy and pay the claims of all its subcontractors, suppliers, etc. and to indemnify, defend and hold the state harmless from such claims. The State has agreed to the settlement subject to the approval of the Federal Highway Administration.

Before presenting our recommendations in support of the settlement, we will review some of the pertinent facts.

The Fremont Bridge was constructed by three contractors. The center span was constructed by Murphy-Pacific. That contract has been finalized. This case involves the East approach which as mentioned above was constructed by Drake-Willamette.

The West approach was constructed by the joint venture of Andersen-Hannan. Andersen-Hannan filed claims very similar to those of Drake-Willamette, and filed a case seeking $1,295,071.15 damages. That has heretofore been settled for a lump sum payment of $429,000. Said settlement was approved by the Federal Highway Administration.

Drake-Willamette's complaint is based on four alleged sources of damage. The first, and most important source of claim is the alleged "deterioration to the inorganic primer on the interior and exterior of the steel girders." After erection of the steel and prior to the application of the vinyl topcoat, there was a substantial rust

breakthrough failure of the primer coat. The contractors claim that they encountered substantial costs and delays occasioned by the repair of the primer coat.

The second source of claim involves the application of the vinyl topcoat. During the initial attempts to apply the vinyl, in October, 1970, a substantial problem was encountered because of the bubbling of the vinyl. The specifications required the vinyl to be applied in a single coat free of pinholes. This proved to be impossible without modification of the specifications. Experiments were made with the use of thinners and various application techniques. Eventually the contractor was authorized to apply the vinyl to the interior of the girders regardless of the bubbling to minimize the delay to the deck forming. Ultimately we switched from Enjay vinyl to a Carbolene product for the balance of the work.

The State paid for the direct cost of the tests and experiments and the switch to the more expensive Carbolene. However, the contractors claim that the substantial delay in solving the problem seriously impacted the paint application and other phases of the work. We have never seriously contested liability for the vinyl problem, but have contended that the impact was not as serious as the contractor claimed.

The third source of claim involve problems with certain of the ring girders. During the progress of the job, it was determined that there was a design problem that resulted in redesigning the ring girders. The State paid for the direct costs of the contractor, occasioned by said change. The contractors claim that the substantial delay because of the changes in the ring girder design impacted other areas of the work. We have never seriously contested liability for the ring girder problem, but have contended that the impact was not as serious as the contractor claimed.

The fourth area of claim involves the expansion joints. And here again there were design changes occasioned by a "noise problem" and also by an "elevation" problem. The State paid for the direct costs occasioned by the changes to the expansion joints. Once again, the contractor claims that the delays associated with the ring girder problems impacted other areas of the work. Here again we have never seriously contested liability, but have contended that the impact was not as serious as the contractor claimed.

We will not comment further on the "vinyl bubbling" and, "ring girder or expansion joint" problems where we acknowledged basic responsibility for the changes, but will hereafter discuss in detail the inorganic zinc failure problem.

Mr. Allan C. Harwood, construction field engineer (Bridge) who has had substantial experience both in bridge construction and in the analysis of construction claims, has devoted a substantial period of time to the analysis of the Drake-Willamette claim. He has reviewed and processed voluminous data. He has prepared a report analyzing and measuring the dollar impact of problems encountered during the work that are within the area of the State's responsibility. In that report he assessed to total dollar impact at $833,439. During his analysis he has had the assistance of other Highway staff personnel familiar with the work, such as, Robert Shotwell, the resident engineer, and Ed Hardt, regional engineer, who coordinated the three Fremont Bridge contracts in the field.

Assessment of said dollar impact was an engineering function. On the other hand, assessment of legal liability and the risks of trial is primarily a legal problem. In making this legal analysis, we have had the assistance of the mentioned and other Highway personnel. Said assessment of liability and risks has been made primarily by the undersigned, Attorney General Lee Johnson, who has been personally involved, John McLean, Assistant Attorney General, and John Leahy, Chief Trial Counsel. However, we have had support from other members of the Attorney General's staff.

Prior to discussing the liability question in detail, we will return to a discussion of the inorganic zinc primer failure and related problems. First the State contracted with Pittsburg Testing Laboratories, hereinafter called PTL, to inspect the fabrication and coating of the steel girders during the production of those members. During the progress of the work PTL issued weekly inspection reports covering painting and other phases of the work.

Drake-Willamette subcontracted said fabrication and coating of the steel to Canron Ltd. The steel girders were painted with an inorganic zinc primer by Canron in Vancouver, B. C. The work was done in a specially constructed building, where the girders were sandblasted and coated in a controlled environment. The plant was designed to allow curing of the primer inside the plant prior to exposing the girders to the weather.

Canron selected RB-191 manufactured by Enjay Chemical Co. (now Exxon Chemical Company), for the primer coat application. Production started in early August 1970. In late August and early September 1970, substantial problems were encountered in the application and cure of RB-191. Production virtually halted. At the request of Canron, the State consented to change to another inorganic zinc primer, RB-193. Enjay Chemical Co. certified that RB-193 "would provide equal or better corrosion protection than

RB-191." The State required a post-cure (acid accelerator) to insure that the RB-193 paint film would be as hard as RB-191.

The use of RB-193 apparently solved the production problems, or so it seemed at the time. Production resumed and a higher rate of production was soon obtained. The paint looked good at the time. The weekly reports of PTL indicated that the paint was being routinely and successfully applied. Although minor problems are discussed, the reports contain little if any criticism of the application techniques or the RB-193 product.

The reports neither forcast or detected the cause of the major paint failure subsequently discovered. Moreover, PTL attached green tags to all girders approved for shipment. Girders needing repairs to the painted surfaces or for other reasons were marked with a red tag. Usually these girders were not shipped until the repairs were completed. Unfortunately, almost all of the girders where the paint subsequently failed were "green tagged" and approved for shipment by PTL. Under the specifications, a sample of each batch of paint was submitted to the state for testing. Our paint laboratory approved each batch as meeting specifications.

As mentioned above, in February 1971, rust breakthrough of the primer was detected on the erected steel at the site in Portland. It soon became apparent that a substantial failure had occurred. All parties were very concerned with the problem. Various and sundry theories have been discussed by the engineers and officials involved and, by various consultants who have studied the problem. However, the specific cause or causes of the failure has never been satisfactorily identified, nor has the responsibility for the failure been pinpointed to this date.

The key to determining the legal liability for the damages occasioned by the paint failure lies in the specifications and determining whether they are "performance specifications" or "design specifications." Under "performance specifications" the contractor is simply told what the end results must be. The decision as to <u>how</u> to accomplish the work is left substantially to the contractor.

Under "design specifications" the contractor is told very specifically what is to be done and to a substantial degree how it is to be done. The contractor has few choices as to how the work is to be performed. He is directed to follow specific methods of construction and does not have the right to deviate from those methods. In the instant case, we have concluded that the specifications for the application of the inorganic zinc primer were "design specifications." (See the attached memorandum for a more detailed discussion of the law as it relates to design specifications versus performance specifications.)

The significance of having design specification is that the contractor is required only to perform the detailed steps required of him by the specifications. If these steps are properly performed, the contractor is not responsible for the failure of the specifications to achieve a satisfactory result. In the event of litigation, the contractor merely has to prove that he carried out the prescribed steps in accordance with the contract. The State then has the burden of proving the contractor did not perform in accordance with the specifications or was negligent in carrying out his work under the specifications and that the specific shortcomings of the contractor caused the damage to the work.

In this case we have little chance of making that proof. It is significant that following the discovery of the failure in February 1971, the Canron Plant was inspected by engineers, representatives and experts of:

The Oregon Highway Division
Pittsburg Testing Laboratories (PTL)
The Federal Highway Administration
The Enjay Chemical Company
The General Paint Company and
Canron, Ltd.'s own people and consultants

Except for a few relatively minor suggestions, none of the above experts or engineers could identify what had caused the problem or determine what, if anything, Canron had been doing wrong. None had substantial suggestions to solve the problem.

Another very significant provision of the specifications is the directive therein that Canron "follow the recommendations of the manufacturer in the application of the inorganic zinc primer." Here again, the contractor is required to follow said recommendations, but is not generally responsible for the consequences of bad advice from the manufacturer's representative.

Here the State having directed the contractor to follow that advice is responsible if the problems in fact originated from faulty advice from Enjay or General Paint, their local agent. We have speculated that said advice in some instances was not the best, but have never identified such advice as being responsible for the failure of the paint application.

As noted above, various experts have not been able to pinpoint the particular cause of the paint failure. The State and Canron jointly hired Mr. John Saroyan, a leading expert in this field, to answer specific questions relative to the application of the inorganic zinc paint and the failure thereof. He concluded that contaminants in the Portland atmosphere coupled with the rainy

conditions in the winter months attacked the inorganic zinc primer. His ultimate conclusion was that the coating had been properly applied but that the environmental attack erroded the zinc at a much more rapid rate than normal. He also concluded that the basic cause of the problem was the failure of the specifications to provide for a seal coat to be applied over the primer at the plant.

If our only task were to disprove Mr. Saroyan's particular theory related to the Portland environment, we should prevail. The weight of the evidence and the published data does not support his conclusions, because the level of contaminants in Portland is relatively low and, we believe, could not cause such substantial deterioration to the zinc primer.

Unfortunately, in the event of litigation, Drake-Willamette would not have the burden of accounting for the specific cause of the failure. As noted above, the contractor merely has to prove that it followed the dictates of the design specifications as to the manner in which the zinc was to be applied and that it also followed the directions of the manufacturer, Enjay Chemical Co.

Based on a review of the facts and partially on the written and oral presentation of Mr. Saroyan, Leonard I. Lindas, then chief counsel for Highway, was prepared in 1973 to recommend that the State accept liability for the failure of the inorganic zinc application. He prepared a draft letter, dated March 12, 1973, and directed to Mr. Vernon D. Cusack, acting division engineer, Federal Highway Administration.

Said drafted letter was distributed to State Highway and Federal Highway administrators and engineers for discussion purposes. Due to doubts about the soundness of Mr. Saroyan's basic conclusions, related to the Portland environment, the exaggerated nature of the Andersen-Hannan and Drake-Willamette claims and to a lesser extent to the retirement of Mr. Lindas, it was decided not to admit liability at that time. A hindsight view demonstrates that Mr. Lindas' conclusions were valid.

Further progress toward settlement or litigation of these claims was delayed by the resignation from the Attorney General's staff of Mr. John Clough, to whom the defense had been assigned. He had spent several months becoming familiar with the facts. The claims were then assigned to John Leahy, Chief Trial Counsel. The undersigned was later directed to assist him.

It was decided that we should not finally admit or deny liability in either this or the West Fremont cases until we had examined

the files and records of all of the general contractors and the files and records of Canron, Ltd. We also decided to employ an independent painting consultant to review all of the facts, make independent tests if necessary, and advise us as to the cause of the paint failure.

Obtaining and examining the mentioned information was a monumental task that took a long time. With the assistance of Highway personnel we examined all of those records, over 10,000 pages of documents were copied. We found little if any information to explain the cause of the paint failure or to implicate the contractor. Our conclusions from the survey of that data were that:

1. Canron appeared to be a substantial and competent construction firm.

2. Canron did its best to design a satisfactory paint application facility and tried to do a good job of fabricating and painting the girders.

3. Canron at the time was also mystified as to the cause of the failure, tried its best to determine the cause and also sought the advice of all concerned as to how their paint operation could be modified to solve the problem.

4. We probably could not demonstrate that Canron failed to follow painting procedures outlined in the specifications or failed to follow the directions given by the manufacturer's representatives.

5. We found nothing to prove negligence on the part of Canron in the paint application.

6. The Enjay Chemical Co. appeared to be as mystified as the other parties in determining the cause of the failure. The remedial measures they recommended appeared to be a trial and error approach to solving the problem.

We have received and analyzed the report of our consultant, Mr. Kenneth Tator. Based on a substantial review of the files and records and other data, and on his own testing program, he concluded that the most probable cause of the paint failure was the failure of the contractor to apply a sufficient quantity of the post-cure acid to portions of the girders. His conclusions appear to be logical and he probably has identified at least one

of the causes if not the principle cause of the failure. Unfortunately, his opinion does little to support a defense of this case. As mentioned we cannot prove that Canron departed from the specifications in applying the accellerator or that Canron was not following the manufacturer's recommendations.

Directions from Enjay Chemical to Canron on the application of the post-cure acid were vague. Canron was instructed to apply that acid "in a mist coat" and to "thoroughly wet" the surfaces. We cannot prove that Canron did not do so. The viscosity of the post-cure is similar to water, and there is no way to subsequently directly measure the quantity applied. An inspector would have to observe 100% of the operation to estimate the quantity of the accellerator actually applied.

On the question of liability, we have concluded that this case is a "loser" for the State. We could present a relatively weak circumstantial case to a jury, but it would not be very convincing and we would probably be stuck with liability. Trying to fight liability from a weak position would probably result in a higher verdict on the damages. With the assistance of Mr. Lee Johnson, Attorney General, who has been directly involved in the negotiations and discussions, we concluded that the State would be assessed 100% of the liability, if the case was tried. We of course , did not communicate that conclusion to the Drake-Willamette attorneys. As mentioned, this case is a loser for the State on liability.

If the case is tried, we will probably admit liability. As mentioned the danger is that the jury in rejecting our claim would reject our opinions as to the extent of damages. Although damages are difficult to determine, we could prove that the Drake-Willamette claims are substantially exaggerated. Accepting 100% liability, Mr. Harwood's report on the damages more than justifies the settlement herein recommended.

As set out in Mr. Harwood's report, the impact from the State caused delays equals $833,439. This amount is $42,439 more than the $791,000 settlement amount. In my opinion the total amount of the settlement is justified because of Mr. Harwood's analysis and the following:

First, if the case is tried substantial portions of the claim would bear "pre-judgment interest." For example, the zinc repair costs of $179,680. Five year's interest on that item alone would be about $53,980. Similar interest would also be allowable on other claims where it could be demonstrated that the State should have paid a particular larger sum at a particular given time. The total prejudgment interest award would, we believe, be $75,000 to $100,000 or more.

This would be a very difficult and expensive case to defend. The added cost including the attorney and witness fees for preparation and trial would probably total $50,000-75,000. The trial and appellate court litigation could be extensive and prolonged. For example, residual portions of the Astoria Bridge litigation against DeLong are still active after 12 years of litigation.

There is another intangible justification for this settlement. That is the substantial risk of a large jury verdict. I feel we can demonstrate objectively that the contractor's claim is substantially too high. On the other hand, Mr. Harwood's evaluation or the contractor's version of the damages is based on many subjective judgments as well as objective facts. If a qualified witness for the contractor testified to $1,000,000 to $1,250,000 in damages, we would be hard pressed to objectively demonstrate that his opinion was incorrect or less valid than Mr. Harwood's opinion.

Another risk with a jury trial is that the jurors due to the complexity of the factual issues involved in the claim, would be confused, particularly if we were to defend on liability as well as damages. There is a substantial chance that the jury might not understand the evidence. It has been my experience that a jury, if confused on damages, tends to award a larger sum to a private party against the State.

In conclusion, we submit that the lump sum settlement of $791,000 is justified and in the best interest of the State and Federal governments. It is also less than the probable verdict, if this case is tried.

Dated: November _____, 1976.

LEE JOHNSON
Attorney General
JOHN LEAHY
Chief Trial Counsel

/s/ Leslie B. Hampton
LESLIE B. HAMPTON
Assistant Chief Trial Counsel

dlc
Attachment

LEGAL
M E M O R A N D U M

Design Specifications v. Performance Specifications

Donald M. Drake Co., et al v. State of Oregon
Marion County Case No. 88-330 (L-7122)

Based on the data and cases hereinafter discussed, I have concluded that the specifications for the application of the inorganic zinc primer and the vinyl topcoat used for coating the girders for the East Approach to the Fremont Bridge are design specifications.

In the memorandum in support of the proposed settlement to which this legal memo is attached, I defined and discussed generally the distinction between design and performance specifications.

In J. L. Simmons Co. v. United States, 412 F2d 1360 (Ct Cl 1969), the court discussed the distinction as follows:

> "The specifications, which were prepared by the defendant, are a classic example of 'design' specifications, and not 'performance' specifications. In other words, in these specifications, the defendant set forth in precise detail the materials to be employed and the manner in which the work was to be performed, and plaintiff was not privileged to deviate therefrom, but was required to follow them as one would a road map. In contract, typical 'performance' type specifications set forth an objective or standard to be achieved, and the successful bidder is expected to exercise his ingenuity in achieving that objective or standard of performance, selecting the means and assuming a corresponding responsibility for that selction." Id at 1362 (Footnote omitted).

As is often the case it is easier to define "design" and "performance" specifications than it is to determine in a particular case whether the specifications fall into one category or the other. In Kansas Turnpike Authority v. Abramson, 275 F2d 711 (10th Cir 1960), the court discussed that problem at 713 as follows:

> ". . . Whether ours is an 'end result' contract or a 'specified manner and method' one depends of course upon the intention of the parties, to be gathered from its text and context: Construction by classification or categorization is rendered

> difficult, if not impossible, by the fact that contracts like ours call for an end result according to specifications. And so, in the last analysis, we must look to the contract by the whole of its parts to determine whether the parties actually intended to provide compensation for extra work required to be done through the fault of no one . . . ."

The court uses the terms "end result" and "specified manner and method" in lieu of "performance" and "design" specifications. However, the test used for categorizing the specifications for a particular job is logical. We will hereinafter examine our specifications in this case utilizing that test to categorize them.

However, prior to that examination, it is necessary to consider another legal guideline. When the owner issues specifications particularly design specifications, there is an implied warranty that if the contractor faithfully follows the specifications that a satisfactory result will be obtained. One of the lead cases discussing that theory of law is J. D. Hedin Construction Co. v. United States, 347 F2d 235 (Ct Cl 1965).

> "It is well settled that where the government orders a structure to be built, and in so doing prepares the project's specifications prescribing the character, dimension, and location of the construction work, the government implicitly warrants nothing else appearing, that if the specifications are complied with, satisfactory performance will result. [Citations omitted] . . . 'This implied warranty is not overcome by the general clauses requiring the contractor to examine the site, to check up the plans, and to assume responsibility for the work until completion and acceptance.' [Citation omitted] . . ."

The Hedin cases cited as authority United States v. Spearin, 248 US 132, 39 S Ct 59, 63 L Ed 166 (1918). This is the leading United States Supreme Court case that originated or at least solidified the quoted "implied warranty" doctrine. The Oregon Supreme Court has specifically adopted the above "implied warranty" doctrine. A. H. Barbour & Son, Inc. v. Highway Comm., 248 Or 247, 433 P2d 817 (1967); Savage v. Kiewit Sons' Co., 249 Or 147, 154, 432 P2d 519 (1967).

We turn now to an examination of the specifications incorporated into this contract, specifically the specifications relative to the inorganic zinc primer and the vinyl topcoat.

This contract was let in 1969 and therefore is governed by the 1964 edition of the Highway Division "standard specifications." However, Section 414 thereof, "Painting New Metal Surfaces" was deleted in its entirety and in its place was substituted "The Steel Structures Painting Manual, Volume 2, Systems and Specifications, Second Edition." This document becomes in effect Section 414 of the Standard Specifications. However, in turn special provisions modified the steel structures painting manual in certain respects and also adopted by reference a number of additional military and federal specifications. As a result, all of the following specifications must be considered:

1. Standard Specifications (1964 Ed), except Section 414.

2. Steel Structures Painting Manual, Volume 2, Systems and Specifications, except as explicitly modified by the Special Provisions, entire SSPC, Vol. 2 was adopted, but including any documents which are by reference made a part of Volume 2.

3. Special Provisions of the contract, new Section 414, "Inorganic Zinc Silicate-Vinyl Coating."

4. The recommendations of the paint manufacturer.

5. The following military specifications:

MIL-P-23236 (ships)	Paint Coat Systems, Steel Ship Tank, Fuel and Salt Water Ballast
MIL-A-15206A	Aluminum Stearate
MIL-S-15191A	Diatomacious Silicate

6. The following federal specifications:

TT-P-350b	Pigment, Lampblack Dry
TT-P-343	Pigment, Carbon-Black, Dry
TT-P-846b	Butyl Alcohol: Normal (for use in organic coatings)
TT-E-776b	Ethylene Glycol Monobutyl Ether (for use in organic coating)
TT-E-781b	Ethylene Glycol Monoethyl Ether, Technical
TT-I-735d	Isopropyl Alcohol, Technical
TT-P-403a	Pigment, Magnesium-Silicate, Dry
TT-P-460	Pigment, Zinc-Dust (Metallic Zinc Powder), Dry
TT-M-268b	Methyl, Isobutyl Ketone (for use in organic coatings)
TT-R-191d	Red Lead, Dry and Paste-In-Oil, Type L Grade 97% Red Lead
TT-P-442	Pigment, Titanium-Dioxide, Type 3, Grade B (Rutile Non-Chalking Type)

TT-T-548c	Toluene, Technical
TT-P-458a	Pigment, Yellow-Iron-Oxide
TT-X916b	Xylene (for use in organic coatings)
	Federal Test Method Standard 141

It is easy to list the many items which are incorporated as part of the specifications. It is not easy to correlate the items and determine their relative priority. A complicating factor is the requirements in the specifications that the contractor in applying the inorganic zinc primer "follow the recommendations of the manufacturer." What if the manufacturer's recommendation varies from the special provisions or one of the specifications incorporated by reference? Although the contract is ambiguous, it is probable that the intent of the parties is to make the manufacturer's recommendations paramount.

In that connection the Steel Structure Painting Manual in referring to zinc primers, states:

> ". . . Therefore, adequate instructions from the manufacturer are essential and must be closely followed to obtain best performance from these coatings.
>
> ". . . .
>
> ". . . the importance of obtaining and following manufacturer's recommendations cannot be overemphasized." SSPC-PS 12-64P

On the job, many of Canron's activities in preparing the surface and applying the coating were guided by the recommendations of Enjay Chemical Co., the manufacturer.

The specifications controlled the painting subcontractor Canron in considerable detail in (1) the selection and approval of the paint manufacturer; (2) approval of the paint itself; and (3) the application and inspection procedures for preparing the surface and applying the paint.

Canron in selecting the manufacturer, had to find a coating that conformed to the following:

> "1. It had to be listed in the qualified products list QPL-23236-21 of products qualified under military specifications MIL-P-23236 (Ships), type I, class 3.
>
> "2. It has to be wholly inorganic.

"3. It had to be self-curing.

"4. It had to be a two-component type consisting of a pigment component and a liquid component.

"5. The composition of the coating had to allow the applier to achieve a 3-mill dry film thickness with a single coat application.

"6. The mixed paint had to contain zinc pigment of not less than 85% by weight of the total non-volitile content.

"7. The zinc dust pigment had to be type I regular, meeting federal specification TT-P-460.

"8. The manufacturer had to furnish case histories substantiating satisfactory performance of the product under specific conditions for at least three years.

"9. The zinc primer manufacturer had to be able to furnish a specified vinyl paint that was compatible with the zinc primer.

10. The manufacturer had to be able to furnish to the paint applier a qualified "technical advisor."

The paint under the special provisions had to pass physical tests. The manufacturer had to conduct and certify to the State certain tests performed and supply to the State test panels under definite prescribed conditions. Enjay Chemical performed the tests and submitted the proofs including the test panels to the State. The State approved said documentation and proofs.

Relative to approval, the special provisions provided that "final acceptance" will be based on test reports of samples obtained after delivery of the paint materials. As mentioned in the memorandum to which this document is attached, the State approved in writing a sample from each and every batch of paint used on the job. So far it seems obvious that the contractor had few if any options in selecting the paint to be used on the job. Moreover, no one has theorized or demonstrated that the paint itself was the cause of the problem on the job.

Turning to the application of the paint, first the requirements for surface preparation, (sand blasting) were very detailed. The applier was required to meet the requirements of Steel Structural Painting Manual, Chapter SP-563, "White Metal Blast Cleaning." He was also directed to follow the manufacturer's recommendations. The specifications were very specific with

regard to the permissible blast-cleaning methods, the brushing and cleaning after blasting, the removal of water and oil from the compressed air used for blasting, the maximum time between blasting and paint application, the inspection of the surfaces after blasting for oil and grease smudges and the matter of removing the same, the height of the profile of the anchor pattern, and the final provision that the surface just prior to the primer was to visually match the appropriate Sa-3 plate SSPC pictorial surface preparation standards.

The depth of the blast profile was specifically described. SSPC SP 563 specified the maximum particle sizes for use with the various blasting methods. Canron found that the profile requirement could not be attained without modification of the blasting mix. Paragraph 2.2, SSPC-PS 12-64 P referring to blast-cleaning states:

> ". . . Instructions from the manufacturer are essential and must be closely followed. . . ."

Canron has contended that when the problems developed they consulted with Enjay Chemical Co. and were directed to follow a particular blasting program by the manufacturer's recommendation. The manufacturer's recommendations probably controlled where there were conflicts in the specifications. In any event, none of the State's engineers or experts or the inspectors and engineers of PTL ever identified the blast-cleaning as being the cause of the paint failure. The PTL reports mention routine blasting deficiencies and the correction thereof, but do not mention major problems with the sandblasting.

The application of the paint was also rigidly controlled by the specifications. SSPC Manual, Volume 2 and the Federal and Military Specifications incorporated total hundreds of pages and dictate in minute detail every step of the painting process from the manufacturing methods through the shop application methods and the means for measurement, inspection and approval of the paint film.

In addition, Enjay Chemical Company held seminars in the application of the paint for Canron employes and representatives of the State and PTL. Enjay Chemical Company during the progress of the job, from time to time issued written directives on various aspects of the paint application.

Summarizing some of the detail from the specifications, the manufacturer had to ship paint in containers of a specified size. The nature of the on-the-job storage area was detailed. The order of use of the stored paint containers was specified. The batches of paint had to be labeled in a particular manner. The paint applicator was instructed to follow the manufacturer's recommendations in the method of mixing the paint. In addition, the

specifications provided for the type of mixing pot to be used, including the type and length of the stirring paddle and the type and mesh of the strainer to be used after mixing.

The type of the spray gun was prescribed, the type of the paint pot was detailed and the elevation of the paint pot related to the elevation of the spray gun was set out.

The minimum temperature of the surface of the steel and the minimum temperature of the paint was specified. The minimum temperature and the relative humidity to be maintained in the paint shop was specified, as well as the minimum and maximum air velocity within the shop.

The detailed directives covering spraying included procedures covering overlap, the angle of the spray gun to the surface, and the distance of the gun from the surface. Methods of handling the sags and runs was also specified.

From the foregoing it is clear that Canron had little if any control over the materials used, the equipment employed or the techniques of application. Also it is important to recall that all of the painting was observed by PTL inspectors on a day-to-day basis.

CONCLUSION

Sometimes it is difficult to locate the dividing line between design and performance specifications. On the other hand, a detailed review of specifications often discloses that specifications for a particular job operation are clearly within one area or the other.

In this case, it seems clear that the inorganic zinc plant selection and application specifications are clearly design specifications. Moreover, the State in issuing the same impliedly warranted that if the contractor followed the specifications that a satisfactory result would be obtained. Consequently, if the contractor is to be charged with liability for the paint failure; the State has the burden of proving specific causes of the paint failure; specific negligence or violation of the specifications by the contractor and that said violations of the specifications caused the failure.

Dated: November _____, 1976.

LEE JOHNSON
Attorney General
JOHN LEAHY
Chief Trial Counsel

/s/ Leslie B. Hampton
LESLIE B. HAMPTON
Assistant Chief Trial Counsel

dlc

FORM 41-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, OR

November 18, 1976

FILE:

FROM: A. C. Harwood
Construction Field Engineer

SUBJECT: East Fremont Claim Analysis

TO: Les Hampton
Asst. Attorney General

Herewith report on my analysis of the claim for additional compensation presented by Drake-Willamette, Joint Venture contractor on the East Fremont project.

The claim is the result of problems with the paint system and design and specification deficiencies. During the period the additional costs claimed were incurred, I had no involvement with the project. Conclusions incorporated in my report are the result of a review and investigation carried out after completion of the project. In my analysis I have first attempted to identify which of the problems cited in the claim were the responsibilities of the State, then the costs which were greater than they would have been but for those problems. My assumptions as to the State's liability for the various cited problems were the result of many hours of review of the contract job records, contract plans and specifications, and numerous meetings with State and contractor personnel involved in the construction of the project; consultants engaged to analyze paint problems; yourself; Jack McLean and Attorney General Lee Johnson. My findings as to additional costs attributable to the problems for which the State is responsible or shares in the responsibility are the result of numerous sessions with the contractor, subcontractors, State personnel, consultants retained by the contractor, and many hours of review of State and contractor records of the project.

The first part of my report is a general discussion of the problems which form the basis of the claim and the results of my analysis as to the State's responsibility for each of the claim items. In the next section, I have determined what, in my judgment, were the excess contractor's costs for each of the areas where I recognized possible State responsibility, and the State's portion for those costs.

Costs claimed by the contractor are the result of loss in efficiency in performing contract items of work which, in addition to increasing the direct labor costs, extended the period of ownership and operation for equipment and extended the period job overhead costs were being incurred. Also claimed are the direct costs for repair of the zinc primer. Subcontractors claims are for continuing overhead, uncompensated extra work, second season mobilization costs, loss in efficiency, and other expenses resulting from the paint problems.

Also enclosed is a copy of the contractor's claim.

ACH:mk

Attach.

EAST FREMONT BRIDGE CLAIM ANALYSIS

Basis of Claim;

The contractor claims the following items resulted in uncompensated direct costs for added work, increased costs for accomplishing contract work, additional overhead expenses due to prolonging the project and escalation of costs due to delaying performance of contract work.

A. Problem with rust breaking through zinc primer.

B. Problems with vinyl paint application over the zinc primer.

C. Revision in the ring girders.

D. Revisions in the expansion joints.

E. Necessity for application of vinyl in advance of concrete deck construction.

F. A deck pouring procedure requiring steel to be erected 3 spans ahead of deck pouring.

A & B. Rust Break Through, Zinc Primer and Problems with Vinyl Application Over the Primer.

Recognizing some probable liability, contractor added expenses attributable to these two items have been determined.

Paint problems caused delay to commencement of productive deck forming work. Repairs to the zinc interfered with deck forming work for an extended period of time. Even into the spring of 1972 forming of large sections of the deck could not be completed due to paint delays which could be traced back to zinc and vinyl problems.

Additional costs claimed by the contractor for vinyl and zinc problems consist of direct costs for repair work, costs due to prolonging the work, and increased costs in performing contract work. The contractor did perform considerable repair work for which he was not compensated. Conflicts between painting and deck forming work did exist through much of the forming operation resulting in inefficiencies in the deck forming and subsequent operations as well as extensive delays.

C. Revision in Ring Girders.

Revision in the ring girders was necessitated by design deficiencies. The contractor was compensated for direct costs involved in the revisions but now claims these revisions resulted in added costs due to loss in production and prolonging of contract work.

C. Revision in Ring Girders (Con't.)

The State is responsible for added costs identifiable as resulting from the revisions. Ring girder revisions did prolong the structural steel erection and did create inefficiencies for which compensation for extra work did not cover.

D. Expansion Joint Revisions:

Revisions of the expansion joints were made due to deficiencies in the original design. The revisions delayed delivery of the joints to the project thus necessitating their installation as a separate operation. The joints not being in place resulted in increased bridging across the openings left in the deck for the joint and the length of time the bridging had to remain in place.

Actual costs for the joint revisions were paid as extra work. The contractor was not compensated for added installation or bridging costs.

E. Application of Vinyl in Advance of Concrete Deck Construction:

The application of the vinyl in advance of the deck forming operation was allowed contrary to specifications as mutually advantageous to the contractor and the State. While the cost of some items of work increased as a result of this change, other items decreased. In my judgment, the State is not responsible for any added costs and it is very questionable that overall the cost was increased by applying the vinyl in advance of the deck construction. This is not considered a valid claim item.

F. Deck Pouring Procedure:

No claim is made for added costs due to the deck pouring procedure required of the contractor. I agree with Mr. Nourse's analysis the procedure required had little if any affect on the contractors operation. In addition I cannot recognize any costs resulting from the deck pouring procedure as the State's responsibility.

Also included in the claim are costs incurred in preparation of the claim. Included are legal fees and claim preparation costs. Allowance of these costs is considered a legal question and is not within the scope of this analysis.

EAST FREMONT BRIDGE CLAIM - COST ANALYSIS

PAINT - ZINC AND VINYL PROBLEMS

The first eight items are increased labor costs for contract work impacted by paint problems. To arrive at the added costs for the first seven items the contractor compares performance during a relative unaffected period with the performance during the periods work was impacted. He claims that even during the favorable periods he would have done better "but for" the impacting factors.

The relatively unimpacted period, referred to as the "yardstick" period selected by the contractor as a performance indicator was from July 18, 1971 to October 17, 1971. Review of data for this period revealed an error in costs reported for the week ending October 17 so the period was extended to October 24, 1971.

In my opinion the assumed 5% loss in productivity attributable to paint problems during the yardstick period is not justified and is not allowed in my calculations.

With these adjustments I can accept the contractor's approach to determining losses as reasonable and accurate.

Deck Forming — Claimed $ 173,751

In addition to the prior previously mentioned adjustments the impact period and quantity of impacted work was reduced.

Allowed $ 88,937

Concrete Placement in Decks — Claimed $ 14,050

Same adjustments as made in deck forming.

Allowed $ 6,711

Deck - Wet Finish — Claimed $ 21,964

Same adjustments as made in deck forming.

Allowed $ 6,459

Deck Cure — Claimed $ 2,125

Same adjustments as made in deck forming.

Allowed $ 1,210

Clean Structural Steel — Claimed $ 56,421

This cost is claimed as due to application of vinyl ahead of deck work. Discussions revealed a portion of the costs was due to the long period of time some of the forms were in place awaiting completion of zinc repair work. Weathering of forms would increase cleaning costs. In discussions with the contractor I arrived at 40 man days as reasonable for the effort required to perform the added cleaning.

Allowed $ 2,282

Parapet Forming	Claimed $	38,112
Adjusted for yardstick period correction and not recognizing 5% loss in productivity during yardstick period.		
	Allowed $	32,135
Concrete Placement in Parapet	Claimed $	3,911
Same adjustments as for forming.		
	Allowed $	3,135
Parapet Finish	Claimed $	9,226
Same adjustments as for forming.		
	Allowed $	3,236

The remaining items relate to time delay resulting from paint problems. The first 6 time related items are the result of the contract being extended. The extension of the contract resulted in equipment and operators, supervisors, office trailers, etc. on the project for a longer period of time. Also added expenses for utilities, overhead, materials were incurred. Drake, as the sponsor of the joint venture, incurred added home office overhead, in the form of payroll clerks, computer operation, other supervisory help, utility cost, etc. which must be recognized as increased due to the project being prolonged.

Specified time for completion of all work on the project was 755 calendar days. Time would have run out on or about October 21, 1971. Work on the project was essentially completed November 28, 1972, 13 months after planned completion date. Final cleanup was not completed until May 25, 1973, 19 months late. No liquidated damages were assessed as a result of the failure of the contractor to complete the project within the specified time. Of the 19 months work contract continued beyond the specified completion time, 8.16 months is claimed as due to delays for which the State is allegedly responsible.

Of the 8.16 months delay claimed I can recognize 5-1/2 months as due to paint problems. One month delay was incurred prior to May 1971 due to vinyl problems and investigation of the rust breakthrough of the zinc primer. The two weeks recognized as delay to the structural steel erection ran concurrently with the initial vinyl-zinc problem.

The 4-1/2 months which delay experienced after May is attributable to reduced production and delays resulting conflicts with the paint repair work.

As compensation for added costs incurred as a result of the delay the contractor claims expenses for the period of September 1, 1971 and May 5, 1972. After May 5, 1972 he indicates overhead expenses were winding down and were not representative of damages suffered.

All time related costs were reduced to reflect the expenses for 5-1/2 months rather than the 8.16 months claimed. Other adjustments were made in individual items as noted.

Equipment Operators — Claimed $ 69,312

Equipment operator costs claimed as due to ring girders was considered with ring girder analysis. Other equipment operators cost total 61,320. This amount is accurate for the 8.16 month delay claimed.

Allowed $ 41,332

Equipment — Claimed $ 340,978

Spliting out equipment costs due to ring girder revision reduces added paint caused equipment costs to 301,303. Operation of some items of equipment could not be verified and rates charged for some pieces of equipment were unacceptable.

Allowed $ 107,172

Overhead Expense Personnel — Claimed $ 68,140

Minor adjustment in costs was made for the 8.16 month period to reflect vacation credit.

Allowed $ 44,870

Material and Other Fixed Costs — Claimed $ 49,261

Several items were not allowed as additional costs due to paint problems.

Allowed $ 27,285

General Conditions - Labor — Claimed $ 9,518

This is overhead nonsupervisory labor costs.

Allowed $ 6,391

Overhead Allocation — Claimed $ 305,184

This item as claimed is a pro rata amount of the total home office cost for Drake. Only a portion of these costs could be identified as directly related to the Fremont Bridge. Allowed for these home office overhead costs is $5,000/month for 5-1/2 months.

Allowed $ 27,500

The next two items are due to portions of the work being delayed so those portions had to be accomplished with higher priced (due to rate increases and inflation) labor and material costs.

Material Escalation — Claimed $ 6,738

Adjusted for the 5-1/2 month delay recognized.

Allowed $ 4,541

Labor Escalation — Claimed $ 11,054

Adjusted for the 5-1/2 month delay recognized.

Allowed $ 7,450

Zinc Primer Repair Costs

These are the direct costs incurred by the contractor in repairing areas where there was rust break through of the zinc primer. Very detailed records were kept by the State of these costs.

Inorganic zinc repairs paid Klaas $177,487

Our records support more cost for this work than claimed.

Allow per State records $179,680

Subcontractor and Material Supplier Claims

All subcontractor claims are attributed to the paint problem.

Canron Claimed $ 223,799

Canron, steel supplier, has claimed unusual additional costs of $143,092.11 due to paint problems. The amounts claimed are portions of the time for regularly salaried people, consultant costs, anticipated legal fees and interest on monies retained by the contractor. They have lumped their costs for East and West side together and prorated the amount allotted to each contract in the same ratio as the dollar value of work they performed, 60.63% to this contract.

Items allowed:

Wages, salaries and expenses	$66,432.66 x .6063 =	$ 40,278
Consultant fees	$28,744.15 x .6063 =	$ 17,427
Miscellaneous	$ 665.00 x .6063 =	$ 403
		$ 63,919
Mark up		$ 5,811
Total		$ 63,919

Gilmore Steel Contractor Claimed $156,019.92

Gilmore claims loss in productivity, extended supervision, field and shop labor escalation, material escalation, and equipment on the project beyond anticipated completion dates.

Items Allowed:

Efficiency loss	$ 6,894
Extended supervision	$ 10,250
Field Labor Escalation	$ 3,633
Shop Labor Escalation	$ 871
Rebar Escalation	$ 8,909
Equipment on job extended period	$ 9,551
	$ 40,108
Mark up 10%	$ 4,010
Total	$ 44,118

Klaas Bros. $102,649

Klaas Bros. claim was revised to $109,656

Includes wage escalation premium pay, overtime worked to minimize delays, subsistance for painters working on zinc repair, second year mobilization costs, extended supervision, mark up on paint purchased for extra work, equipment on project for extended period and unpaid extra work.

Items recognized:

Wage escalation	$ 5,164
Mobilization	$ 572
Extended supervision	$ 3,826
Mark up on vinyl	$ 3,237
Mobilization	$ 4,225
Unpaid billing force account work	$ 600
	$ 17,624
Mark up 10% *	$ 1,439
Total	$ 19,063

* Except on vinyl

RING GIRDER REVISION

The claim is that 2 weeks in time and effort of the steel erection crews were lost in erection of the structural steel as a result of revisions in the ring girder. Actual cost of making the revisions was paid as extra work; however additional moves resulting from revisions in erection sequence were not compensated nor were inefficiencies resulting by the performance of the extra work recognized.

My review indicates the 2 weeks claimed as lost production for the steel erection crew is conservative if anything. Additional time for completion of the project was allowed for ring girder revisions considerably in excess of the 2 weeks lost production claimed.

Contractor job records support the amount claimed for 2 week delay.

Cost items claimed:

Structural Steel Erection $ 29,685

This amount represents labor costs for the steel erection crew for two weeks. Operators are not included.

Amount recommended $ 29,685

Equipment Operators (Struct. Steel) $ 7,992

Labor costs for operating equipment used in steel erection.

Amount recommended $ 7,992

Equipment (Struct. Steel) $ 39,675

Equipment costs attributable to 2 week delay at force account rates.

Amount recommended $ 39,675

EXPANSION JOINT REVISIONS

The contractor claims that revisions ordered by the State and paid for as extra work delayed delivery of the expansion joints resulting in out of sequence erection and additional costs for bridging access block outs left for the joints. The State is responsible for added erection costs and added bridging costs.

Expansion Joint Erection Claimed $ 36,714

Cost records support the amount claimed for installation of the joints. In my opinion, added labor cost claimed is high. However, there were added equipment costs which were not claimed and would more than offset any excess labor.

Allowed as claimed $ 36,714

Temporary Bridging Claimed $ 1,947

The contractor compares the bridging that would have been required with that actually required. In my judgment, the amount claimed is reasonable.

Allowed as claimed $ 1,947

APPLICATION OF VINYL AHEAD OF DECKING

Not recognized as a valid basis for a claim.

Clean Structural Steel Claimed $ 56,421

The portion of the increased cleaning costs attributable to application of vinyl ahead of the deck construction is not allowed. In discussion with the contractor it was brought out that some of the cleaning costs could be attributed to delays resulting from zinc primer problems. A portion of the claim is therefore reconsidered as a paint problem cost.

Claim Preparation Costs — Claimed $ 90,368

Costs claimed result from preparation of the claim and include legal fees, consultant fees, photo and assembly costs. No part of this item is considered to be within the scope of my analysis.

Allowed $ 0

CLAIM SUMMARY

ITEM	AMOUNT CLAIMED	ALLOWED	
Paint Problems - Includes vinyl coating and zinc primer problems.			
Deck forming	$ 173,751	$ 88,937	
Deck Pouring	14,050	6,711	
Deck Finish	21,964	6,459	
Deck Cure	2,125	1,210	
Parapet Forming	38,112	32,135	
Parapet Pouring	3,911	3,135	
Parapet Finish	9,226	3,236	
Clean Structural Steel	**	2,282	
** Claimed under application of vinyl ahead of deck construction.			
Equipment Operators	61,320	41,332	
Equipment	301,303	107,172	
Overhead	68,140	44,870	
Materials	49,261	27,285	
Labor - General Conditions	9,518	6,391	
Overhead allocation	305,184	27,500	
Material Escalation	6,738	4,541	
Labor Escalation	11,054	7,450	
Zinc Primer Repair	177,487	179,680	
Paint Total - Contractor			$590,326
Subcontractor Claims:			
Canron	$ 223,799	$ 63,919	
Klaas	102,649	19,063	
Gilmore	171,622	44,118	
Total Subcontractor			$127,100
Total Paint Items			$717,426
Ring Girder Revision			
Structural Steel Erection	$ 29,685	$ 29,685	
Equipment Operators (Struct. Steel)	7,992	7,992	
Equipment (Struct. Steel)	39,675	39,675	
Total - Ring Girder			$77,352
Expansion Joint Revisions			
Expansion Joint Erection	$ 36,714	$ 36,714	
Temporary Bridging	1,947	1,947	
Total Expansion Joint Revisions			$38,661
Application of Vinyl in Advance of Deck Construction			
Clean Str. Steel	$ 56,421	***	

*** Some allowed under paint problem.

ITEM	AMOUNT CLAIMED	ALLOWED
Deck Pouring Procedure		
No Claim	-----	-----
Claim Preparation	$ 90,368	$ -0-
Total Claim	$2,014,016	$833,439

7311

DATE: December 9, 1976

TO: Oregon Transportation Commission

FROM:
H. S. Coulter
State Highway Engineer

SUBJECT: Claim Settlement
East Fremont Interchange

Donald Drake-Willamette Western, joint venture contractors on the East Fremont Interchange project, filed suit against the State on September 18, 1974 in the amount of $2,289,199.55. The contractor claimed damages arising out of corrective work he was required to perform as the result of an apparent failure of the paint system to adequately protect the bridge and for resultant delays. Also claimed were damages resulting from delays to completion of the contract resulting from contract revisions ordered by the State.

The Fremont Bridge was constructed in three sections by three different contractors. The main span was constructed by Murphy-Pacific and produced no post-contract claims. The West Interchange, constructed by a joint venture of the H. A. Andersen Company and Hannan Bros. Construction Company, resulted in the filing of a suit by the contractor seeking $1,295,071.85 in damages. That case was settled for $429,000.

Construction of the East Interchange by Drake-Willamette was carried out under three separate contracts (Nos. 7310, 7311 and 7312) totaling $23,985,192.00.

After listening to reports on extensive review and testing carried out by State consultants and by Highway Division personnel, State legal counsel decided that because of the complexities of the project and our liability for portions of the contractor's allegations, the State would likely be held liable in court for a substantial part of the damages incurred by the contractor.

Extensive reviews of the contractor and State records were carried out in an effort to ascertain the extent of the damage suffered by the contractor. As a result of these reviews and negotiations in which Attorney General Lee Johnson personally took an active part, a settlement in the amount of $791,000 was agreed to.

The settlement is contingent on concurrence and participation by the Federal Highway Administration.

As of this date, the Federal Highway Administration reply has not been received; however, it is expected by December 21, the date of the Commission meeting.

Under terms of the proposed settlement, the State will be obligated to pay interest on any portion of the settlement amount not paid on or before December 21, 1976.

Settlement on the above basis is justified and believed to be in the State's best interest. Your concurrence is requested. This item will be on the agenda for your consideration at the December 21 meeting.

bc R. A. Burco
C. W. Head
F. B. Klaboe
E. S. Hunter
R. L. Schroeder
R. N. Bothman
Walt Hart, Region 1
Bob Ellison, Bridge
C. T. Keasey
V. E. Skoog
Walt Barrie
George Bell

7311

NOTED
H. S. COULTER

Box 300
Salem OR 97308

December 5, 1975

Oregon Project I-405-8(20)(21)(22)
Paint Claim on the East & West Fremont Interchange
Kenneth Tator Report

G. L. Green, Division Administrator

Mr. F. B. Klaboe, Administrator & State Highway Engineer
ATTN: E. S. Hunter

We have read Mr. Tator's report of November 11, 1975 on the Inorganic zinc paint coating failure of the East and West Fremont Interchange steel. To us this report seems to be the only logical explanation of the failure to date. The paper clip test for hardness appears to be the one testing procedure that we did not understand the importance of.

In order for us to assess our current position, can you obtain the following information for us?

1. Have you recorded in your inspection record the results of the paper clip test during the period attributed to failure?

2. What actual amounts of zinc paint the phosphoric acid curing solution were applied during this period? (From Mr. Campbell's comments, it looks like this information is available in his files or in General Paint's files.)

3. Does the State, Canron, or General Paint have daily records of the sub-strata temperature, the ambient temperature, the relative humidity, and/or air circulation in the curing section of the paint building?

To date we do not know, formally, the State's position on this claim. We will continue to keep abreast of all information submitted but will not make any commitments until your position is submitted.

Original Signed By
VERNON V. CUSACK
Engineering Coordinator
G. L. Green

cc
OSHD (HART)
OSHD (COULTER)
FHWA (HUTLEDGE)

HASchell:cp

RECEIVED
DEC 8 1975
Office of
Assistant State Highway Engineer

#7311

KENNETH TATOR ASSOCIATES
2020 MONTOUR ST. • CORAOPOLIS, PA. 15108 • (412) 262-2663

PROTECTIVE COATINGS (PAINT) CONSULTANTS: Testing • Instruments • Inspection • Corrosion Engineering

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310
LEE JOHNSON
ATTORNEY GENERAL

F. B. Klaboe
Administrator
Highway Department
140 Highway Building
Salem, Oregon 97310

COATING FAILURE ON THE FREMONT BRIDGE
PORTLAND, OREGON

RECEIVED
STATE HWY ENG.
NOV 17 '75
REFER TO
Klerk - Barrie
FOR
11-18-75
Info | Inves | R/D | D/R | Sgn | Art | File

Kenneth B. Tator
Kenneth Tator Associates
2020 Montour Street
Coraopolis, PA 15108

November 11, 1975

INTRODUCTION

The following commentary can be considered a summary of my opinions regarding the failure of the zinc-rich coating applied to the Fremont Bridge. As you are aware, I was not involved in the pending litigation, nor was I aware of the coating failure until the latter part of 1974. Accordingly, I did not see the failing coating on the bridge, did not see Canron's coating facilities, nor do I have any first-hand knowledge of many of the details regarding the coating failure. However, on the other hand, there is a great deal of information regarding the failure available through correspondence, reports, and photographs. In studying the information supplied to me, I feel the following questions (phrased below with my summary answer) are most relevant to the coating failure. Accordingly, I shall direct my subsequent discussion along this outline.

1. Were the painting specifications for the bridge sufficient to obtain a suitably protective job?

   SUMMARY ANSWER: The painting portions of the specifications for the bridge provide sufficient latitude for a prospective bidder to select a coating system from a number of manufacturers, and to apply that system using the equipment, methods, and techniques he selects. The specifications, if followed, would produce a satisfactorily coating job sufficient for long term protection (fifteen or more years) to the bridge steel.

2. Did the aggressiveness of the Portland environment cause the coating failure?

   SUMMARY ANSWER: The Portland environment in the vicinity of the Fremont Street Bridge is relatively mild compared with many other environments where untopcoated inorganic zinc-rich coatings have performed satisfactorily. The Portland environment did not cause the massive failure of the zinc-rich coating on the bridge.

3. What did cause the failure?

   SUMMARY ANSWER: Insufficient cure of the zinc-rich primer prior to exposure to a wet weathering environment appears to have been the predominant factor.

4. Was Canron's application responsible for this insufficient cure?

SUMMARY ANSWER: Deficient application of the curing accelerator of the post-cured RustBan 193 and exposure of RustBan 191 to the environment prior to its achieving sufficient self-cure are responsible for the failure.

1. WERE THE PAINTING SPECIFICATIONS FOR THE BRIDGE SUFFICIENT TO OBTAIN A SUITABLY PROTECTIVE JOB?

The painting portion of the specifications for the bridge--State of Oregon "Standard Specifications for Highway Construction" 1964 and Oregon State Highway Department "Special Provisions for Highway Construction and Supplemental Standards Specifications, Stadium Freeway, Unit A, East Fremont Interchange"--is typical in scope and content of a zinc-rich coating system specifications for large structures such as bridges, chemical plants, etc.

Zinc-rich primers are considered in the industry as being somewhat more difficult to apply and topcoat than more widely used conventional coatings such as alkyds, epoxy esters, and other synthetic resin barrier coatings. Accordingly, where a large amount of steel is to be coated with a zinc-rich primer most knowledgeable specifiers will include "red flag" conditions in the specifications to alert a prospective bidder that this coating is different than others he may be used to applying. Strict observance of these "red flag" conditions do not necessarily guarantee a satisfactorily protective job--although violation of any one of them will lead to a high probability of premature zinc-rich coating failure. The "red flag" conditions in the OSHD specification are typical of those included in other major zinc-rich coating specifications; such as the degree of blast cleaning, anchor pattern, number of coats and color, time of painting after blast cleaning, weather conditions for painting, requirements for agitation and spray application for the inorganic zinc-rich primer, etc. In fact, many of these requirements are standard requirements in any painting specification,regardless of the nature of the coating being applied, and can be considered "good painting practice." Accordingly, I cannot agree with Canron that the OSHD specifications are "design specifications carried to the 'nth degree."

The specifications for painting the bridge allow the prospective bidder to select the coating of their choice from recognized list of approved inorganic zinc-rich coatings. In fact, Canron solicited quotations from a large number of paint companies, and finally narrowed their choice down to three competitors. Ultimately, for reasons best known to them, they selected Enjay.

Except for OSHD specification requirements consistant with good general painting practice for zinc-rich primers, the specification, with regard to application procedures and

techniques, is not restrictive. There is wide latitude within the specifications requirements for the applicator's choice of most application specifics, such as method of blast cleaning, choice of abrasive, choice of spray application equipment, air and fluid pressures, tips, caps and needles, environmental control, etc. The specification is designed to allow maximum coordination and interface between the coating applicator and coating manufacturer. This, of course, is important on any painting job.

I feel, then, that the OSHD specification is not a repressive, dogmatic, design specification--but, in fact, is a well written performance specification designed to emphasize or "red flag" potential problem areas in application and to achieve harmony and close working arrangements with the coating manufacturer and applicator. To this end, I feel the specification, if followed in letter and spirit, would result in a satisfactory long-term protective coating system applied to the Fremont Bridge.

2. DID THE AGGRESSIVENESS OF THE PORTLAND ENVIRONMENT CAUSE THE COATING FAILURE?

With all due respect to Mr. Saroyan, I do not feel the Portland environment caused the rapid, premature failure of the zinc-rich primer. While Mr. Saroyan's chemical explanation of SO_2 hydrolysis to form sulfuric acid which then attacks the zinc to form zinc sulfates is indeed correct; this reaction does not proceed as imagined as a result of a number of factors. The first is that, in my opinion, the SO_2 environment in Portland, when compared to many other cities, is relatively mild. Zinc-rich coating systems perform well in relatively severe chemical fume industrial environments such as those encountered in steel mills, chemical plants, fossil fuel power stations, etc., where the SO_2 concentration is expected to be considerably higher than that recorded in Portland.

Also, not all SO_2 in the environment would hydrolze ultimately into sulfuric acid which would contaminate the bridge. Any sulfuric acid formed by hydrolysis with rain water or atmospheric moisture would be very dilute with a pH very close to neutral. The zinc reaction products in neutral or near neutral environments are usually hydrated zinc oxides, zinc hydroxide, and zinc carbonates, all of which have an alkaline pH. This alkalinity tends to neutralize weak acids and eliminate or moderate their effect. Furthermore, other influences will reduce the rate of chemical attack on the zinc--such as passivation by formation of reaction products, partial encapsulation of the zinc by the sodium-lithium silicate binder, and chemical or physical polarization of both the anodic and cathodic reactions.

That the presence of SO_2 and other acid hydrolyzing gasses in the environment do not aggressively attack zinc-rich coatings or other materials is empirically determined by the abundantly successful use of susceptible materials of construction (such as galvanize, aluminum, and others) in the Portland area. RustBan zinc-rich primers exposed on test panels in the immediate vicinity of the bridge have not failed by rusting or excessive salt formation after a number of years' exposure. Industrial test stations KENNETH TATOR ASSOCIATES maintains in a steel mill in Pittsburgh and at a ferric chloride plant in Detroit reveal that zinc-rich coatings (including water based inorganic zinc-rich coatings) have unexpectedly good resistance to even relatively aggressive acidic environments, even when untopcoated. This does not mean to say that acid attack does not occur--but it definitely does not occur at such a fast rate that total failure of a zinc-rich primer can be expected within a matter of months as apparently was the case on the Fremont Bridge.

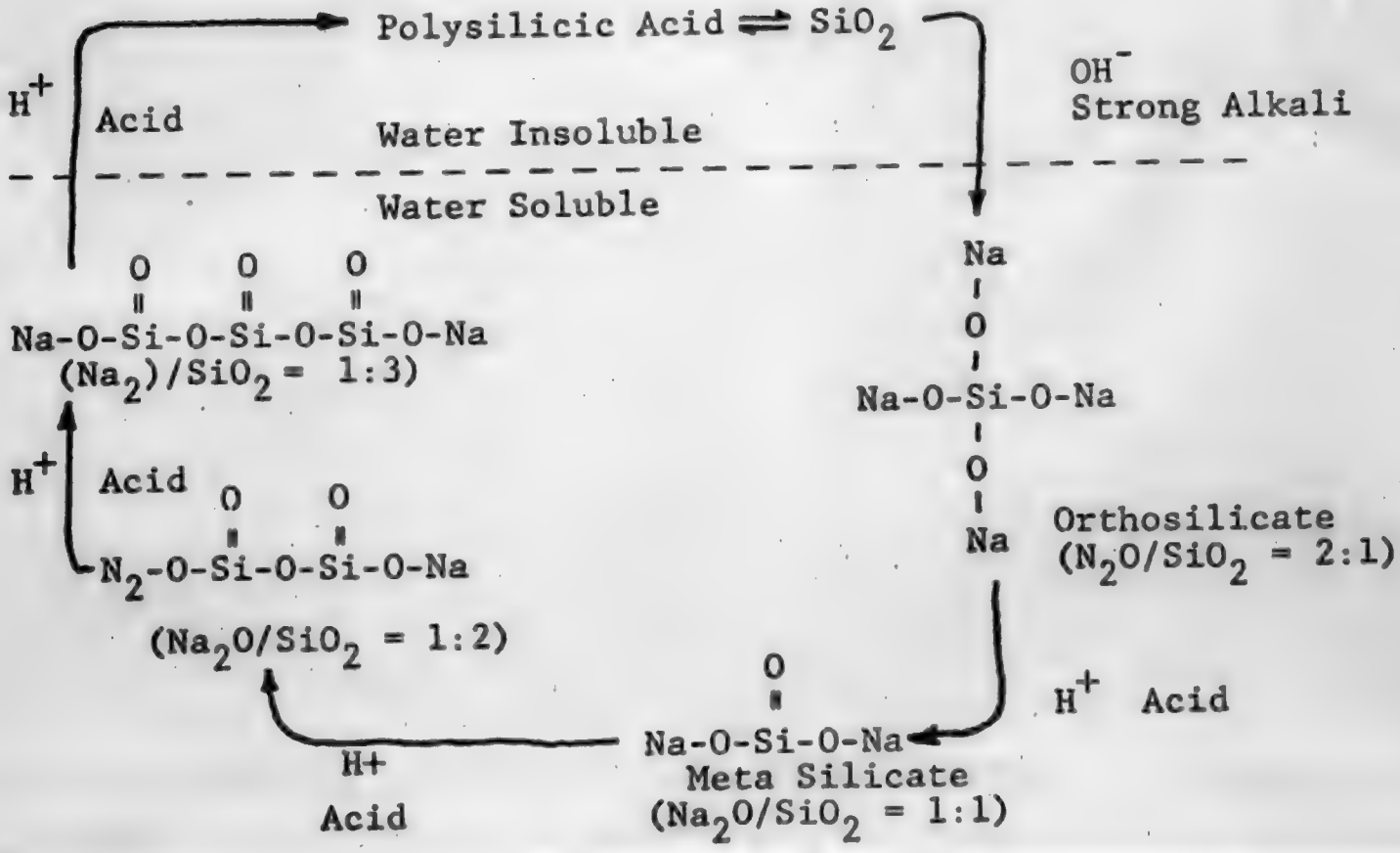
3. WHAT DID CAUSE THE FAILURE?

It is felt that insufficient cure of the RustBan 193 (and also the 191 that failed) was a predominating factor in the failure of the Fremont Bridge coating. The high alkalinity detected by Mr. Lowry (page 264 and elsewhere in his deposition); the softened zinc-rich coating (mentioned on page 186 and elsewhere); the apparent loss of zinc-rich primer thickness (pages 259, 359 and elsewhere); excessive zinc salting; ultimate rusting of the underlying steel substrate; and blistering and bubbling of the vinyl topcoat can best be explained by insufficient curing of the sodium-lithium silicate in the RustBan zinc-rich primers.

The chemistry of the curing reaction has been explained by Mr. Saroyan in a number of his reports. The chemistry, pretty much as he has written it, is summarized as follows:

Silicate Reactions

(Both Sodium and Lithium Silicate React In A Similar Fashion)



These reactions indicate, as the ratio of Na_2O to SiO_2 decreases, the molecule becomes more water insoluble. To decrease the ratio (in order to achieve desired water insolubility) an acid is added in progressive steps. At the Na_2O/SiO_2 ratio of 1:3 sufficient insolubility is obtained to allow zinc-rich binder formulation. However, in order for complete water insolubility to occur additional acid must be added to the mixture. With RustBan 193, this would be done during the application of the post-curing accelerator 6851.

However, what Mr. Saroyan does not say, and what I feel may be a major issue, is the rate at which these reactions occur. Briefly, after application the water-base zinc-rich primer dries by water evaporation (this occurs quite rapidly, and within a period of only a few minutes in most cases the coating becomes dry to the touch). However, further water evaporation must occur in order to crystallize the water-glass matrix. As Mr. Saroyan points out, this matrix is still water soluble and must cure (by acid addition) to be water insoluble. With water-base self-curing zinc-rich coatings (such as RustBan 191) curing results from reaction with the environment. The reaction can take either or both of two forms: Bicarbonates or other additives are formulated into the paint which hydrolyze with moisture in the air to form carbonic acid; or a slower but efficient atmospheric reaction involving the hydrolysis of carbon dioxide with water to form carbonic acid. RustBan 191, to my knowledge, utilizes the CO_2 hydrolysis cure.

For post cured water-base coatings (such as RustBan 193) the direct addition of an acid such as sulfuric, hydrochloric or phosphoric is used. Phosphoric acid is preferred because it is a weaker acid and can be more readily buffered from attacking the zinc dust in the paint film, and as well it forms less soluble reaction products with the zinc. Ultimately however, the coating after completion of these reactions becomes hard, insoluble, and after excess free acid is removed, has a neutral pH. The coating is relatively impervious to water and in normal atmospheric environments (neutral or near neutral within a pH of hydrolyzing contaminants from approximately 5.5 to 10) will react to form various zinc carbonates, oxides, and hydroxides and to a lesser degree zinc chlorides, zinc sulphides, and sulfates, etc. (These latter reactions dependent primarily upon atmospheric contaminants.) As Mr. Saroyan points out, these salts are beneficial to the zinc-rich coating except when they are in excess.

However, it is evident that the salts formed on the bridge steel were far in excess. Furthermore, there is general agreement that the applied zinc-rich coating apparently lost thickness after application in the Canron painting

facility, and upon later measurement in the Portland area. A soft zinc-rich coating was observable on occasion and in general the RustBan primer was so soft that the use of the paper clip test was discouraged as a measure of coating quality. Upon attempting to apply the vinyl topcoat, severe blistering and bubbling occurred. In my mind's eye, rather than being unexplainable phenomena--all this is indicative of water solubility of the sodium-lithium zinc-rich binder.

Excessive zinc salts, as Mr. Saroyan indicates, will result from aggressive atmospheric attack. However, they also will result if the zinc-rich binder is not insoluble and water can leach it, exposing or loosening zinc dust particles from the surface of the film. These particles will readily react in a neutral or near neutral environment to form zinc carbonate products (as opposed to zinc sulfate), and because they are loosely held, will wash from the surface as more binder leaches out during periods of precipitation. Mr. Lowry's observation of high surface alkalinity can be explained by the fact that the leached water soluble matter is highly alkaline, and after repeated washings, this alkalinity would still persist. Also, this same phenomena would explain the rather high loss of coating thicknesses occurring between Vancouver and Portland. It is our experience that zinc-rich coatings of all types, including water-base inorganic zinc-rich coatings, do not suffer significant loss of coating thickness under normal conditions in as little as three to six months. In fact, work that we have done indicates that there is no significant loss of thickness of water-base inorganic zinc-rich coatings after years of exposure in aggressive marine and salt environments. Furthermore, the paper clip test or rubbing with a metallic object such as a Canadian quarter has always been, in our opinion, a good field indication as to whether the degree of cure or insolubilization of the zinc-rich primer is adequate. If the coating is "punky", soft and cheese-like, the coating is not sufficiently cured. On the other hand, if a bright metallic luster is exposed upon rubbing, the coating is suitably cured. The "common paper clip test" as described in Steel Structures Painting Council Specification 12.00 "Guide to Zinc-Rich Coating Systems" was written to emphasize that properly cured zinc-rich coatings are hard and abrasion resistant.

Therefore, in my opinion, the major fault with the Fremont Bridge coating was that it was insufficiently cured and insolubilized. However, why this condition came to be is less certain.

After application of the zinc-rich coating, as mentioned previously, the coating "sets" by water evaporation culminating in crystallization of the silicate matrix. At this point, the zinc-rich coating is still water soluble and requires an acidic reaction to make it insoluble. However,

the rate at which this crystallization phase of the curing occurs is dependent upon a number of things, including substrate temperature, ambient air temperature, relative humidity, and air circulation, as well as thickness of the coating at any given spot. Without questions, the longer one waits prior to application of the acidic post-curing agent the greater the probability of the crystallization reaction having occurred completely. If the acidic curing agent is applied prior to complete crystallization, the coating will be softened somewhat, and the acid will react with an "unset" binder, with the ultimate result that further crystallization, and homogeneity within the film will be permanently disrupted. Ultimately, upon exposure to precipitation, the film, not being completely insoluble, will leach, resulting in the observed failure.

In addition, the amount of accelerator applied is extremely important. I feel that the greatest error was in applying too little accelerator as opposed to applying too much. Application of too much accelerator will cause the phosphoric acid accelerator to flow down over the surface, and collect on horizontal surfaces. In time, the excess acidity at these areas of accelerator collection may attack the zinc-dust particles. However, I feel that this happened, if at all, only in localized, predictable areas.

Rather, however, it is felt that insufficient accelerator was applied in the Canron painting shop to provide adequate cure to the lithium-silicate zinc-rich to withstand the precipitation in Vancouver and Portland. The effect of insufficient post-curing acceleration application would be that after crystallization (presuming crystallization was complete at the time of the accelerator application) the coating would not be sufficiently insolublized to water prior to Canron's placing it in the atmosphere to await barge shipment to Portland.

The rate at which the acidic neutralization and insolublizing reaction occurs again is a function of a number of factors including substrate and ambient temperature, zinc-rich coating thickness, amount of accelerator applied, humidity, circulation, etc. After application of the curing solution, the members were moved into the Vancouver environment in a matter of minutes to as long as a few hours.

The time required for these coating deficiencies to become apparent is again based upon a variety of factors such as the degree or extent to which the curing reaction occurred, the interval between coating operations and first incident precipitation, and as always, temperatures and humidities and other ambient conditions. It is entirely conceivable that much of the defective coating would not be detected in the Canron facility as the only manifestation would be the relative softness of the coating (which was disregarded by everyone at the time), and surface alkalinity--

which apparently was not measured. The formation of zinc salts, and leaching of the silicate binder resulting in lessening coating thickness would be noticeable only upon continual exposure to the environment over a period of time.

Mr. Saroyan and others have indicated that rust staining over the zinc surface from the top flange of girder sections caused or accelerated the failure. Furthermore, a series of chemical equations were presented to substantiate this. Again, with due respect to Mr. Saroyan, I feel this rust staining neither caused nor measurably accelerated the coating failure. Light brown rust--the kind causing staining is Fe_2O_3--insoluble in water and fully oxidized in stable form. Accordingly, it will not readily react as dissociated Fe^{++}ions in solution as Mr. Saroyan indicates. While there is a dissimilar metal cell established, the rate of reaction is so slow, due to a number of reasons that it is of no practical consequence. In the field, I have never seen rust staining on a zinc-rich primer that I felt caused premature failure, or diminished film thickness.

In my opinion, this "deficient zinc-rich cure theory" is the most plausible explanation for the observed failure and "unexplainable" phenomena observed during the course of coating application and bridge construction.

4. WAS CANRON'S APPLICATION RESPONSIBLE FOR INSUFFICIENT CURE OF THE ZINC-RICH PRIMER?

Unfortunately, despite what I feel were Canron's intentions and best efforts, premature failure of the zinc-rich primer did occur. Furthermore, I feel this failure resulted from insufficient curing of the zinc-rich primer prior to exposure to moisture and weather.

With RustBan 191, this happened because the coated steel was placed outside in a cold and/or damp environment too soon after paint application. As mentioned previously, the period of time after application required for the coating to become water insoluble is dependent upon a variety of environmental factors.

The same reason for failure applies to RustBan 193 as well--except that a curing accelerator was applied after application of the zinc-rich paint in order to allow a more rapid exposure to the environment. If the curing accelerator were applied uniformly in the amount recommended by Enjay over the zinc-rich primed surface, no failure would have occurred on the Fremont Bridge. In retrospect, however, this did not happen and the observed failure resulted.

In my opinion it would be relatively easy to apply insufficient accelerator. Enjay's calculations and recommendation regarding application of the accelerator are most likely, based upon stoichiometric calculations. Mr. Saroyan, in one of his reports, had conducted similar calculations that are in apparent agreement with Enjay's recommendations. However, in the field, under what could be described as marginal lighting conditions, and application to a relatively complex surface of a "water clear" material; I feel it is almost inevitable to expect deficient application in some areas and too much accelerator applied in other areas. Psychologically, as it is common knowledge (even among painters) that phosphoric acid attacks zinc--and that RustBan 193 will self cure under the right conditions even if no accelerator were applied--perhaps less importance was placed upon application of the accelerator. There is, of course, no way to measure the application of the accelerator except by calculation of coverages which are only averages at best.

If the curing accelerator is applied as Enjay recommends--completely wetting the zinc-rich primer--the coating should be adequate to withstand exposure to a wet environment in as little as fifteen minutes or so. However, the longer the coating cures before environmental exposure, the better.

If the surface is not sufficiently wetted, the coating cannot suitably cure and insolubilize, and failure in the northwest winter environment is inevitable.

In addition to insufficient curing, it is felt that some failure can be attributed to skips, misses, and holidays inherent in any large structural steel coating job--and as well, coating thicknesses less than that specified. Mr. Lowery, in his deposition, has already allowed to some of these discrepancies.

#7311

Robert W. Straub
xxxxxxxxxx

March 18, 1975

1135-5

Mr. Paul L. Heineman
Howard, Needles, Tammen & Bergendoff
1805 Grand Avenue
Kansas City, Missouri 64108

Dear Mr. Heineman:

Fremont Bridge Approaches
Custom Duty on Shop Drawings

We concur with your position that custom duty on the shop drawings for the East and West Fremont Interchanges is the proper responsibility of the respective general contractors.

We will consider a request for reimbursement of your costs if the general contractors fail to acknowledge this responsibility and you are forced to make direct payment to avoid late penalties.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

bc F. B. Klaboe
E. S. Hunter
H. S. Coulter (enc.)
C. T. Keasey "
Walt Hart
Jack Sollis "
R. N. Bothman "

WJH:dh ja

HOWARD NEEDLES TAMMEN & BERGENDOFF

RECEIVED
STATE HWY ENGR
MAR 6 '75
REFER TO
FOR
Info | Inves | R/D | D.R | Sign | Ass

February 28, 1975

Oregon Department of Transportation
State Highway Building
Salem, Oregon 97310

Attention: Mr. A. E. Johnson
Deputy State Highway Engineer

Re: Fremont Bridge Approaches, Portland, Oregon
Custom Duty on Shop Drawings

Gentlemen:

Enclosed are copies of our correspondence with the two general contractors regarding the customs claim on the shop drawings. We understand the state is involved in lawsuits with the general contractors regarding other matters pertaining to the subject contract. Therefore we consider our approach to the general contractors, directly, might resolve this customs claim. Contrary to the statement in our letter to the contractors, we may elect to pay the custom claim within 30 days to avoid further penalties.

While we hope this approach will result in direct reimbursement of our costs, we are not excluding the future necessity of recovering this cost from the state under terms of our engineering agreement. We trust that you recognize this is a cost unfairly directed to us and beyond the scope of responsibility in our engineering agreement.

We will keep you fully informed, as we have in the past, of developments in this case.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

Paul L. Heineman
Enclosures

RECEIVED
MAR 7 1975
BRIDGE DIVISION

Planning Engineering Architectural Services

1805 Grand Avenue, Kansas City, Missouri 64108, 816 474-4980

Partners H.C. Lamberton, Jr., James F. Finn, Paul L. Heineman, Joseph H. Looper, Robert O. Drange, Bernard H. Rottinghaus, Gerard F. Fox, William M. Wachter, George K. Erganian, Browning Crow, Charles T. Hennigan, Edgar B. Johnson, Daniel J. Watkins, Daniel J. Spigai
Associates Rex M. Whitton, Daniel J. Appel, William C. Meredith, Orrin Riley, Francis X. Hall, Robert W. Richards, Robert S. Coma, Don R. Ort, John L. Cotton, Donald A. Dupies, Frederick H. Sterbenz
Offices Alexandria, Va., Atlanta, Baltimore, Baton Rouge, Boston, Buffalo, Cape Coral, Fla., Charleston, W. Va., Chicago, Cleveland, Dallas, Fairfield, N. J., Indianapolis, Kansas City, Miami, Milwaukee, Minneapolis, Newark, Del., New York, Orlando, Overland Park, Kan., Philadelphia, Richmond, Seattle, Washington, D. C., Woodbridge, N. J., Lisbon, Rio de Janeiro

NOTED
W. J. HART

HOWARD NEEDLES TAMMEN & BERGENDOFF

February 28, 1975

Andersen-Hannan
P. O. Box 13367
3427 N. W. Halsey Street
Portland, Oregon 97213

Re: Fremont Bridge Approaches, Portland, Oregon
Custom Duty on Shop Drawings

Gentlemen:

On November 18, 1974, our firm received notice from the U. S. Customs Bureau demanding payment of approximately $9,800 for duties, penalties, etc. on structural steel shop drawings we received from your subcontractors on the referenced project. (Copy attached.)

By terms of your general contract for the project with the State of Oregon, all costs of preparing, shipping and processing of shop drawings are the responsibility of the Contractor or by his subcontractors to him. We had been assured by Canron that all custom requirements had been met.

Since the U. S. Customs Bureau had presented the claim to us directly with a time limit for reply, we had our attorneys prepare a petition opposing the claim. The reply to our petition reduced the claim to a total of about $1,200, a reduction of over $8,000 (see attached letter). Our attorneys indicate that further steps to oppose the claim to the Customs Bureau would cost more than the $1,200 with no assurance it would be decreased without even more costly litigation.

Although the final cost of resolving the matter is the responsibility of the General Contractor, we suggest it might be in the best of interests of all concerned for this reduced claim to be paid promptly. To avoid further penalty for delays, legal costs, etc., we are willing to pay the U. S. Customs Bureau claim on condition that you reimburse us that amount ($1,204.15) plus $1,200 for our legal costs and engineering salaries to date for opposing the original claim and securing the potential reduction of over $8,000. If we are not so authorized and reimbursed, we will not pay any claim until legally compelled to do so, thus presumably losing the potential reduction of $8,000. Then we would be obliged to institute legal proceedings to recover all of our costs. We are not aware of your contractual relations with your subcontractor,

Canron, Ltd., who may be responsible to you for this claim.

Very truly yours,

HOWARD NEEDLES TAMMEN & BERGENDOFF

Paul L. Heineman

PLH/mj

Enclosures

Copy to: Oregon Department of Transportation
State Highway Building
Salem, Oregon 97310
Attention: Mr. A. E. Johnson
Deputy State Highway Engineer

NOTICE OF PENALTY OR LIQUIDATED DAMAGES INCURRED AND DEMAND FOR PAYMENT

Case Number: 75-4501-10046

Port Name and Code: 4501 Kansas City, Mo.

Investigation File No.: KC08GM493014

TO:

Howard, Needles, Tammen & Bergendoff
1805 Grand Avenue
Kansas City, Missouri

DEMAND IS HEREBY MADE FOR PAYMENT OF $ 2,413.00, representing ☐ Penalties or ☐ Liquidated Damages assessed against you for violation of law or regulation, or breach of bond, as set forth below:

In 1969, 1970 and 1971 you received 5131 shop drawings by mail from Canada and Japan without paying the duty which was legally due. In addition to this penalty a demand is also made for the accrued duties of $404.15.

(continue facts on reverse)

LAW OR REGULATION VIOLATED	BOND BREACHED
19 United States Code, Section 1592	

DESCRIPTION OF BOND (if any)	Form Number	Amount $	Date

Name and Address of Principal in Bond

Name and Address of Surety on Bond	Surety Identification No.

If you feel there are extenuating circumstances, you have the right to object to the above action. Your petition should explain why you should not be penalized for the cited violation. Write the petition as a letter or in legal form; submit in (duplicate) (triplicate), addressed to the Commissioner of Customs, and forward to the District Director of Customs at 120 S. Central, Suite 400, St. Louis, Missouri 63105

Unless the amount herein demanded is paid or a petition for relief is filed with the District Director of Customs within 60 days from the date hereof, further action will be taken in connection with your bond or the matter will be referred to the United States Attorney.

Signature	Title	Date
By: William L. Dawson	District Director	11/8/74

DEPARTMENT OF THE TREASURY

DEPARTMENT OF THE TREASURY
U.S. CUSTOMS SERVICE
St. Louis, Missouri

February 12, 1975
REFER TO
ENF-4-02-D:C&V DKH

Ronald B. Stang
Linde, Thmson, Van Dyke, Fairchild & Langworthy
900 Walnut Street
Kansas City, Missouri 64106

Re: St. Louis Customs District
Case: 75-4501-10046
Dated: November 4, 1974

Dear Mr. Stang:

The petition filed by you on behalf of Howard, Needles, Tammen & Bergendoff has been reviewed.

In 1969, 1970, 1971 the petitioner received shop drawings through the mail from Japan and Canada. These importations were not presented to Customs for payment of duties due.

The investigation of this case indicates there was no deliberate attempt on the part of the importer to avoid the payment of the duties due, but this happened through simple negligence. It is the decision of this office to remit the forfeiture upon payment of $800.00; plus $404.15, the amount that originally should have been paid as duty. The drawings were given a nominal value for duty purposes.

Your petition stated a desire to meet with Customs representatives to discuss this matter. Such a meeting would be held at the Customs office in St. Louis and may be arranged by contacting this office.

If you are not satisfied with this decision you may file a supplemental petition within thirty days in accordance with Section 171.33 of the Customs Regulations. The supplemental petition will be forwarded to the Regional Commissioner of Customs, Chicago, Illinois for consideration.

RECEIVED
FEB 24 1975

Sincerely yours,

William L. Duncan

William L. Duncan
District Director

FILE: PER 7-4

#7311

Salem, OR 97310

December 27, 1974

Leslie B. Hampton
Assistant Chief Trial Counsel
Department of Justice
106 State Office Building
Salem, OR 97310

Carl Hobson
Assistant Personnel Director

Request of December 24, 1974
For Personnel Involved With the Fremont Bridge

Listed below is the information you requested in your letter of December 24, 1974.

NAME	POSITION IN 1969	CHANGES
Albert E. (Al) Johnson	HE 8, Materials Engineer, Portland	July 1, 1970, Promoted to HE 9, Assistant State Highway Engineer, Salem January 15, 1973, Promoted to Deputy State Highway Engineer, Salem (Current Position)
Theodore C. Roake	HE 7, Assistant Bridge Engineer, Salem	Retired April 30, 1970 Last known address: 16504 S.W. Lake Forrest Blvd., Lake Forrest, OR 97034
Leonard Wallace, Jr.	HE 7, Bridge Design Engineer, Salem	Current Position
Cecil A. Gardner	HE 5, Bridge Office Supervisor, Salem	Retired January 7, 1972 Last known address: 2010 Court Street, N.E. Salem, OR 97301
Adrian D. Olson	HE 6 Preliminary Design Engineer, Salem	September 1, 1970, Promoted to HE 7, Preliminary Design Engineer (Current Position)

NAME	POSITION IN 1969	CHANGES
Oscar A. White	Retired	Retired June 30, 1979 Last known address: 660 W. Clackamas Circle, Woodburn, OR 97071
H. Dean Mandrell	Materials Testing Engineer 2, Engineering Supervisor, Salem	May 31, 1974, Resigned Last known address: 4055 Alana Avenue S.E. Salem, OR 97302
James E. Chidsey	HE 4, Senior Specifications Engineer, Salem	July 14, 1969, Promoted to HE 5, Structural Quality Control Engineer February 1, 1973, Promoted to HE 6, Utilities Engineer (Current Position)
Ed J. Rief	HE 4, District Inspection Engineer, Portland	Current Position
Daniel J. Barbee	HE 8, Design Engineer	August 31, 1970, Retirement Last known address: 1090 Donna Avenue N.E. Salem, OR 97303
Duane O. Christiansen	HE 6, Supervisor, Bridge Design Engineer	Current Position
Clarence G. Swenson	HE 6, Specifications Engineer	Current Position
Lawrence E. George	HE 8, Traffic Engineer	Current Position

If you need any further information or assistance, please let us know.

CH:wc

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
106 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

December 24, 1974

Mr. Gene Huntley, Director
Personnel Section
511 State Highway Building
Salem, Oregon 97310

Re: Anderson - Hanna v. State of Oregon
Case No. 86553 (L 7122)

Dear Gene

I forward herewith a list of OSHD personnel who were involved in one way or another with the planning and construction of the Fremont Bridge.

As you probably know, we have pending litigation with both the east approach and west approach contractors. We are currently in the "discovery stage", with the usual exchange of records and information. The time period involved is from July, 1969 to the present. We need the following information: Job position as of July, 1969; significant changes in the job and title of the individuals and the date thereof; and finally, the current position of the individuals or the date of their retirement from the Department.

Please have one of your people supply me the information at the earliest possible date.

Sincerely

Les Hampton

Leslie B. Hampton
Assistant Chief Trial Counsel

ph

Enclosure

HIGHWAY DEPT.
DEC 26 1974
PERSONNEL

Re: Anderson-Hannan v. State of Oregon (West Fremont Interchange)

LISTING OF OSHD PERSONNEL

Al Johnson -

✔ Theo. C. Roake - 564 Rose St N.E, Salem 97301

✔ Alfred Rear -

L. L. Wallace -

✔ C. A. "Slim" Gardner - 2010 Court NE Salem 97301

Adrian Olson -

✔ Oscar White - 660 W. Clackamas Circle Woodburn 97071

✔ Dean Mandrell -

J. E. Chidsey -

Ed Rief -

✔ D. J. Barbee - 1090 Donna Ave NE, Salem 97303

Duane O. Christensen -

Clarence "Swede" Swenson -

L. E. George -

RECEIVED
OCT 6 1974
ATTORNEY GENERAL
SALEM, OREGON

#7311

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION
SALEM, OREGON 97310

December 19, 1974

Mr. J. D. Gammage
Engineer of Materials,
Research & Training
State Dept. of Transportation
Gainsville, FL 32601

Dear Jim:

I was fortunate in being permitted to attend the Zinc-Rich Coatings Conference in Chicago on December 4 and 5 and to hear and meet Mr. Dick Ramsey there. I thought the entire program was worthwhile and I particularly appreciated the information presented by Dick about your experiences with zinc-rich coatings in Florida

Our interest in inorganic-zinc coatings is particularly strong at this time because of two pending law suits totaling something like $5 million. The largest suit involves the Fremont Bridge in Portland. The inorganic zinc coating, first Rust Ban 191 and later post-cured Rust Ban 193, was applied in Vancouver, B.C. The problem developed when rust was discovered on many RB 193-coated members early in 1971 in Portland, only a month or two after being coated. The fact that some members arriving in Portland continued to rust at an early age, some members rusted and some did not, and the rusting stopped when more stringent inspection procedures were instigated in Vancouver, leads us to believe that the cause of the problem was faulty application. On the other hand, the fabricator blames the rust on the requirements of the specification that "restricted the allowable coatings to only one product - Rust Ban 191," and to the "aggressive environment" of Portland.

In view of your much more extensive experience with zinc-rich coatings I wonder if it would be possible for Dick Ramsey to review the specifications for the Fremont Bridge to determine if, in his opinion, the specifications were such that in 1969 - 1971 only one coating could meet them. Also, are the specifications so vague, contradictory and confusing as to preclude obtaining a satisfactory coating application.

RECEIVED
DEC 23 1974
Office of
Assistant State Highway Engineer

During the course of application of the RB 191 in the early fall of 1970, and before there was evidence of a rusting problem, the fabricator requested a change from RB 191 to RB 193. The principal reason for the requested change was that he was having difficulty getting steel clean and with the proper blast profile for RB 191, whereas with RB 193 he could largely forget about profile and concentrate on cleanliness. Because of a reported softer surface on naturally cured RB 193 as compared with naturally cured RB 191, the Highway Division required that all RB 193 be force cured with RustBan Accelerator 6851. The fabricator had wanted to force cure only if the weather conditions were poor.

In discussing our problem with Dick Ramsey he commented that the Florida Highway Department had tested RB 193 and had rejected it for use on your structures. May I ask what the conditions of test were and in what manner the coating failed? If you have a report on the test we would very much like a copy. If there is a cost please let me know.

Dick has been very helpful in suggesting tactics which might be of value in preparing our legal defense. For this, and any other assistance you might provide, we are extremely grateful.

Sincerely,

JOHN C. JENKINS
Engineer of Materials

JCJ:gs

bc: H. S. Coulter
L. B. Hampton
E. L. Hardt
R. N. Bothman
J. Howard
R. Shotwell

7311

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
106 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

November 26, 1974

Mr. A. E. Johnson
Deputy Highway Engineer
State Highway Building
Salem, Oregon

Re: Klaas Bros. Inc. v. Drake-Willamette

Dear Mr. Johnson

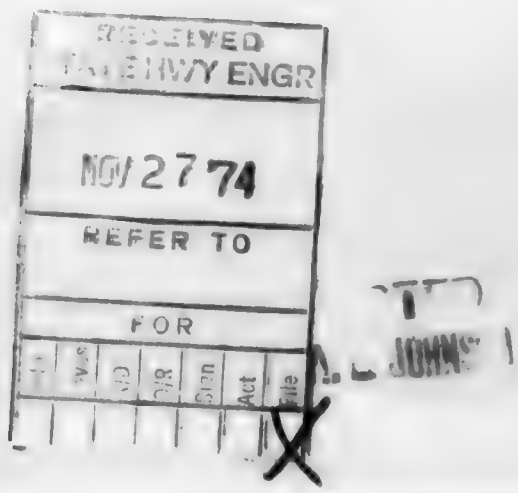
Klaas Bros., has sued Drake-Willamette in the Federal District Court for Oregon for their damages allegedly occurring during the construction of the Fremont Bridge. They asked for damages in the amount of $101,647.97. Preston C. Hiefield, Jr., attorney for Drake-Willamette tendered the defense of the Federal Court case to the State of Oregon. However, we have refused to accept the tender of the defense. For your information I forward herewith a copy of the complaint in the Federal case.

Sincerely

Les Hampton

Leslie B. Hampton
Assistant Chief Trial Counsel

am
cc: Walter Hart
Edward Hardt



ROCKNE GILL
SOUTHER, SPAULDING, KINSEY,
WILLIAMSON & SCHWABE
1200 Standard Plaza
Portland, Oregon 97204
Telephone: 222-9981

Of Attorney for Plaintiff

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

STATE OF OREGON, ex rel, KLAAS BROS., INC., Plaintiff, vs. DONALD M. DRAKE COMPANY, WILLAMETTE-WESTERN CORPORATION, dba WILLAMETTE RIVER CONTRACTORS, THE TRAVELERS INDEMNITY COMPANY, GENERAL INSURANCE COMPANY OF AMERICA, Defendants.	Civil No. 74-744 COMPLAINT ON SUBCONTRACT AND ON PERFORMANCE BOND FOR DAMAGES AND DEMAND FOR JURY TRIAL

Plaintiff complains and alleges:

1. The court has jurisdiction of this action under 28 USC §1332 in that the amount in controversy exceeds $10,000, exclusive of interest and costs, and there is diversity of citizenship of the parties, as follows:

a. Plaintiff, Klaas Bros., Inc. (hereafter "KBI"), is a corporation organized under the laws of the State of California and has no principal place of business in the state of Oregon.

- - - .

b. Defendant, Donald M. Drake Company (hereinafter "Drake") is a corporation organized under the laws of the state of Oregon, and has its principal place of business in Oregon and not elsewhere;

c. Defendant, Willamette-Western Corporation (hereinafter "Willamette") is a corporation organized under the laws of the state of Oregon and has its principal place of business in Oregon and not elsewhere;

d. Defendant, The Travelers Indemnity Company (hereinafter "Travelers"), is a corporation organized under the laws of the state of Connecticut and has its principal place of business in Connecticut and not elsewhere;

e. Defendant, General Insurance Company of America (hereinafter "General Insurance"), is a corporation organized under the laws of the state of Washington and has its principal place of business in Washington and not elsewhere.

2. The Oregon State Transportation Commission, and the Highway Division of the Oregon State Department of Transportation acting under the direction of said Transportation Commission are, respectively, the statutory successors of the powers, duties and functions of the Oregon State Highway Commission and the Oregon State Highway Department acting under the direction of said Highway Commission. The state of Oregon acting by and through the Oregon State Highway Department before the statutory succession, and acting by and through the Oregon State Transportation Commission and the Highway Division of the Oregon State Department of Transportation

after the statutory succession, is referred to hereafter as the "State".

3. Shortly prior to September 11, 1969, Drake and Willamette organized and joined themselves into a joint venture under the firm name and style, "Willamette River Constructors", but otherwise generally called "Drake-Willamette" and hereafter referred to as "DW". DW was formed for the purpose of bidding upon and performing the one or more prime contracts to be let for the construction of the East Fremont Interchange for the State of Oregon.

4. On or about September 11, 1969, the State entered into several prime contracts with DW for the construction of the several units respectively of the East Fremont Interchange. So far as material here, the State and DW entered into prime contracts designated as Nos. 7310 and 7311 for the construction of the portions of the Interchange described and specified as "Unit A" and "Unit B", respectively.

5. On the same date, Drake and Willamette, as co-principals, and Travelers and General Insurance, as co-sureties, acting pursuant to law, duly executed and posted with the State the performance bonds required by law for contracts Nos. 7310 and 7311, respectively.

6. A true copy of those bonds and parts of these contracts are attached hereto and incorporated herein as Exhibits "A" and "B".

7. On or about June 24, 1970, DW subcontracted to KBI a portion of the work of those prime contracts by a single written subcontract of that date.

8. By the terms of that subcontract, DW promised and agreed among other things, as follows:

a. To pay KBI at the times and under the terms in the subcontract the sums specified therein in consideration of the performance of specified work by KBI. The sums specified and the work to be done were separately stated in the subcontract as follows:

For KBI, work, labor, and materials on Unit "A" - $229,146

For KBI, work, labor and materials on Unit "B" - $132,045.

b. To furnish for the use of KBI in its performance, certain materials and equipment; and to make the site of the work and structures to be worked on by KBI available in a timely manner for the proper and efficient performance of the work;

c. That DW will not delay, interfere with, or interrupt the work of KBI or otherwise fail reasonably to cooperate with KBI;

9. By the terms of said subcontract between DW and KBI, KBI promised and agreed, among other things, to perform and furnish certain of the work, labor, and materials for painting of the structural steel designated as a portion of prime bid item No. 33 of Unit "A" and a portion of prime bid item No. 75 of Unit "B".

10. KBI performed all conditions required of it to be performed, including performance of all the work and furnishing of all the labor and materials and all other things required of it by the terms of the subcontract for which, by the terms thereof, it was to be paid the prices provided therein.

- - -

11. At the order and request of DW, KBI also performed and furnished extra work, labor, and materials of an extent and magnitude beyond the scope and contemplation of the original subcontrac between DW and KBI, all of which extra work, labor and materials were on and used in the performance of said prime contracts Nos. 7310 and 7311.

12. In the course of its proper performance of its work under the subcontract, KBI suffered delays, interference, and interruptions and unreasonable failure of cooperation by acts and omissions of DW, which acts and omissions constituted breaches of the subcontract on the part of DW. KBI was forced to perform and furnish extra work, labor, and materials in order to overcome such breaches by DW and complete the subcontract work. The reasonable value of such extra work, labor, and materials thereby constitutes damages suffered by KBI as a proximate result of the breaches of DW.

13. DW has heretofore paid KBI in part for all of said extra work, labor, and materials. The balance which is unpaid and which is due and owing from DW to KBI for the reasonable value of said extra work, labor, and materials is in the amount of $101,647.97. Said sum is the reasonable value of the extra work, labor, and materials performed and furnished by KBI as alleged above for which KBI has not been paid.

14. Said sum first became due and owing to KBI on or prior to February 14, 1973. On February 14, 1973, KBI demanded payment in writing from DW of said sum. On September 18, 1973 KBI again demanded in writing that DW pay said sum.

15. On July 5, 1973, the State accepted the work of prime contracts Nos. 7310 and 7311 for Units "A" and "B", respectively. Said acceptance was by affirmative action of the State on that date in the sense of ORS §279.528.

16. On September 20, 1973, KBI, by notice in writing of that date, under oath, sent notice to the State in the manner and style and stating the facts required by ORS §279.528. Said notice was duly received in due course of the mail and duly filed by the State.

17. By the terms of the same notice dated September 20, 1973, addressed to DW, to General Insurance, and to Travelers, KBI demanded of each of them payment of the above alleged sum. Said demands were delivered by hand to authorized agents of Travelers and General Insurance on the same date and were also sent to each of them and to DW by mail, and were received in due course of the mail.

18. More than six months have elapsed since General Insurance and Travelers received said demand for payment, but the same remains due, owing, and unpaid.

19. KBI has been required to employ and incur the expense of legal counsel in order to enforce its rights by the commencement and prosecution of this action. Said employment and the expense thereof are reasonable. By the terms of ORS §743.144, KBI has a right to the recovery of reasonable attorney fees in this action from General Insurance and Travelers.

20. Plaintiff demands trial by jury.

WHEREFORE, Plaintiff, Klaas Bros., Inc., demands judgment as follows:

1. Against all defendants in the principal sum of $101,647.97, together with interest thereon at the legal rate from and after February 14, 1973;

2. Against defendants, The Travelers Indemnity Company and General Insurance Company of America, for reasonable attorney fees;

3. Against all defendants for such other and furuther relief as may be proper.

SOUTHER, SPAULDING, KINSEY,
WILLIAMSON & SCHWABE

BY: /s/ Rockne Gill
ROCKNE GILL

Of Attorneys for Plaintiff

STANDARD PLAZA
PORTLAND, OREGON 97204
TELEPHONE 222-9981

I HEREBY CERTIFY THAT THE FORE-
GOING IS A TRUE COPY OF THE
ORIGINAL THEREOF.
Rockne Gill
Attorneys for

7311

CONT 7214, 7310 & 11

October 31, 1974

Mr. Glen Green
Division Engineer
Federal Highway Administration

Dear Mr. Green:

Contract Litigation
East and West Fremont Interchanges
Contracts 7214, 7310, and 7311

As you are aware, the contractors for the East and West Fremont Interchanges have filed actions seeking approximately $2,290,000 and $1,295,000 respectively. The early legal proceedings will involve the finalizing of the pleadings with examination of records and the taking of depositions. The State's case will be presented by Mr. Leahy and Mr. Hampton of the State Attorney General's office.

It is our opinion, and that of our legal staff, that it will be necessary to obtain the services of independent experts to advise us on the facts and to testify in the probable litigation. We have tentatively selected two such experts—Mr. Kenneth Tator and Dr. Meredith.

Mr. Tator is an experienced consulting engineer. A copy of his qualifications is attached. His name, along with two others, was furnished by the National Zinc Institute. The qualifications of the three individuals suggested have been reviewed by Mr. Hardt, Region 1 Engineer; Mr. Jenkins, Materials Engineer; and Dr. Meredith.

Generally we had proposed for Mr. Tator to review and report on the adequacy of our paint specifications on data relative to the effect of the Portland environment on the inorganic zinc primer and on the

probability that faulty application, rather than the environment, was the primary cause of the failure of the inorganic zinc primer. We would also anticipate requesting Mr. Tator to investigate and report on the vinyl paint bubbling problem.

Arrangements have been made for Mr. Tator to come to Portland next week. He will arrive the evening of ~~October~~ NOV. 5 and be here the sixth and a portion of the seventh. The purpose of his visit is for us to affirm his apparent qualifications. We will present the problems to him and determine whether or not he is willing to assist us with them. We will also ascertain the approximate fee for the assignment.

Dr. Robert Meredith worked last summer for Mr. Jenkins in our Materials Lab on an unrelated problem. At off moments he devoted some time to studying the probable effect of the Portland environment on inorganic zinc primer. We believe it would be advantageous to update our testing of panels and probably conduct additional tests subjecting test panels to various solutions duplicating the environmental problems.

In the event of litigation, which is probable, a non-Highway employee expert on corosion, would probably be more persuasive to a court or jury. Dr. Meredith seems well-qualified to do the testing work in cooperation with Mr. Jenkins. A copy of Dr. Meredith's qualification is attached. His fee for consulting work is $200 per day or $25 per hour. We have utilized some of his time to discuss the possible testing and to assist us in evaluating the merits of Mr. Tator and the other experts considered.

Federal participation in securing the two outside consultants and other related costs in preparation of the State's case in this pending litigation is requested.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

Enclosures
WJH:dh

cc L. Hampton
E. L. Hardt
J. Jenkins
W. J. Hart

F. N. Hveem
E. S. Hunter
R. L. Schroeder
H. S. Coulter

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION
103 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-4620

October 30, 1974

Mr. A. E. Johnson
Deputy Highway Engineer
Highway Building
Salem, OR 97310

Re: Drake-Willamette vs. State
Anderson-Hanna vs. State
L-7122 and L-7121
Fremont Bridge

Dear Mr. Johnson

As you know the contractors for the east and west approaches to the Fremont Bridge have filed actions seeking approximately $2,290,00 and $1,295,00 respectively. The early proceedings will involve the finalizing of the pleadings, the examination of records and the taking of depositions. It is also necessary to start outlining and preparing the presentation of our cases. John Leahy, Chief Trial Counsel, and I will be handling them.

It will be necessary to obtain the services of added independent experts to advise us on the facts and to testify in the probable litigation to come. Mr. Leahy and I have tentatively selected two such experts, Mr. Kenneth Tator and Robert Meredith.

Mr. Tator is an experienced consulting engineer. I forward herewith a copy of his qualifications. His name with two others was furnished by the National Zinc Institute. We reviewed the qualifications of the three by obtaining some of their respective work and discussing the same with Ed Hardt, John Jenkins and Professor Meredith. We also briefly discussed the experts with you.

Generally we visualize a review and a report on the adequacy of our paint specifications, our data relative to the effect of the Portland environment on the inorganic zinc primer and the

cy John Jenkins
Ed Hardt
11-1-74

NOTED
A. E. JOHNSON

probabilities that faulty application rather than the environment was the primary cause of the paint failures. We also envision an investigation and report of the "vinyl paint bubbling problem".

Mr. Leahy and I arranged for Mr. Tator to come to Portland next week. He will arrive the evening of the 5th and be here the 6th and a portion of the 7th of November. He also has an assignment in Phoenix, Arizona which will save some of his transportation costs. The purpose of his visit is for us to affirm his apparant qualification and the favorable impression that he made by telephone. We will present the problems to him and determine whether or not he is willing to assist us with them. We will also obtain the approximate fee involved for the assignment.

Dr. Robert Meredith last summer worked on a unrelated problem for John Jenkins in our lab. At off moments he devoted some time to studying the probable effect of the Portland environment on inorganic zinc primer. In discussions with Mr. Hardt, you and others we decided it would be to our advantage to update our testing of panels and probably conduct additional tests subjecting test panels to various solutions duplicating the environmental problems.

In the event of litigation, which is probable, a non-highway employee expert on corrosion would probably be more persuasive to a court or jury. Dr. Meredith seems well-qualified to do the testing with the cooperation of Mr. Jenkins. I enclose a copy of his qualifications. His fee for consulting work is $200 per day or $25 per hour. Mr. Leahy and I had heretofore utilized some of his time to discuss the possible tests and to assist us in evaluating the merits of Mr. Tator and the other possible experts.

I would appreciate your informing the appropriate Federal Highway Administration personnel of our intent to utilize these experts. Please also have your staff do the necessary processing to obtain federal participation in this phase of our trial preparation.

Sincerely

Les Hampton

Leslie B. Hampton
Assistant Chief Trial Counsel

lj
Enclosures
cc: Mr. Ed Hardt
Mr. John Jenkins

KENNETH TATOR ASSOCIATES
2020 MONTOUR ST. • CORAOPOLIS, PA. 15108 • (412) 262-2663

PROTECTIVE COATINGS (PAINT) CONSULTANTS: Testing • Instruments • Inspection • Corrosion Engineering

KENNETH B. TATOR

Kenneth B. Tator is the owner of KENNETH TATOR ASSOCIATES, a consultant engineering firm specializing in industrial protective coatings. The Company's services include premature paint failure analysis and corrective recommendations; laboratory and field paint testing; specification writing and review; on-the-job coating application inspection, and the sale of a complete line of coating inspection instrumentation.

EDUCATION

Columbia University -- Graduate School of Business
Master of Business Administration

Lafayette College --
Bachelor of Science in Chemical Engineering

ASSOCIATION MEMBERSHIPS

American National Standards Institute
National Association of Corrosion Engineers
American Society of Testing Materials
Society for Paint Technology
Utilities Nuclear Coating Work Committee
Steel Structures Painting Council

EXPERT TECHNICAL WITNESS

Tator has presented expert witness testimony on coating failures in the following states: Pennsylvania, Ohio, South Carolina, Florida, Delaware, Rhode Island, and West Virginia.

Tator has been selected to write two important chapters; "Surface Preparation of Metal Surfaces", and "Zinc Rich Coatings"; in the upcoming McGraw-Hill Paint Specification Handbook.

PUBLICATIONS

"Coating Inspection Instruments"; PLANT ENGINEERING, September 19 and October 3, 1974.

"Coating Developments, Problems, Trends in the Chemical Industry"; MATERIALS PERFORMANCE, September 1974.

"Use Good Sense With Paint Specs"; CANADIAN CHEMICAL PROCESSING, March 1974.

"Engineers Guide to Protective Coatings"; CHEMICAL ENGINEERING Deskbook Issue, December 4, 1972.

"Engineered Painting Pays Off"; CHEMICAL ENGINEERING, December 27, 1971.

"Industrial Maintenance Painting--Proper Planning and Careful Selection of Alternatives Can Save Money"; AMERICAN SOCIETY OF MECHANICAL ENGINEERS, October 1971.

"Industrial Painting--Doing It Properly Can Save Money"; CANADIAN CHEMICAL PROCESSING, March 1971.

"On-The-Job Coating Inspection Helps Insure Quality Application"; MATERIALS PROTECTION AND PERFORMANCE, Vol. 10, No. 2, February 1971.

"Protective Coatings"; CHEMICAL ENGINEERING Deskbook Issue, October 12, 1970.

"Industrial Paint Testing"; NEW YORK CORROSION COURSE, October 1969.

"A Consultant Looks at Zinc Rich Paints"; ZINC INSTITUTE, INCORPORATED, November 1969.

"Corrosion Resistant Zinc Paints"; ZINC INSTITUTE, INCORPORATED, May 1969.

SEMINARS

Tator has presented technical papers or educational lectures at various meetings including: National Association of Corrosion Engineers; Liberty Bell Corrosion Course; New York Corrosion Course; American Zinc Institute; Canadian Zinc Institute; American Society of Mechanical Engineers; National Plant Engineering and Maintenance Conference; Kanawha Valley Coatings Society; University of Missouri-Rolla; University of Wisconsin-Madison; Center for Professional Advancement; Engineering Foundation Conference; Paint Research Institute of the Federation of Societies of Paint; and various corporate seminars.

KENNETH TATOR ASSOCIATES
2020 MONTOUR ST. • CORAOPOLIS, PA. 15108 • (412) 262-2003

PROTECTIVE COATINGS (PAINT) CONSULTANTS: Testing • Instruments • Inspection • Corrosion Engineering

STANDARD FEE STRUCTURE: KENNETH B. TATOR

CONSULTATION CHARGES:

First Day: $350.00, each successive day $250.00

Minimum Consultation Charge (part of a day): $100.00

Technical Report: $40.00/hour with a two hour minimum.
(The average technical report is four pages in length and requires two hours preparation time.)

LITIGATION:

Expert Witness Testimony: $350.00 per day
(courtroom or deposition)
Courtroom Availability: $275.00 per day
(no testimony presented)
Retainer Fee: As pending litigation may restrict our availability for other consulting jobs, we charge a retainer of $100.00/month or any part of a month we are involved in litigation proceedings. This fee includes provisions for telephone conferences, etc.

All charges are plus expenses.

RECEIVED
OCT 20 1974
ATTORNEY GENERAL
SALEM, OREGON

OREGON STATE UNIVERSITY

School of Engineering

MEREDITH, Robert Eugene
Associate Professor

BIRTH DATE
February 25, 1928

DEGREES

B.S., Chemistry, University of Calif. at Berkeley, 1956
Ph.D., Chemical Engineering, University of Calif. at Berkeley, 1959

ACADEMIC POSITIONS

Research Associate, University of California, 1956-57
Assistant Professor, Oregon State University, 1959-63
Associate Professor, Oregon State University, 1963-

NON-ACADEMIC POSITIONS

Union Oil Co., Rodeo, Calif., Summer 1956
California Research Corp., Richmond, Calif., Summer 1957
Consultant, U.S. Bureau of Mines, 1959-66
Consultant, Pacific Power and Light Co., 1962
Consultant, U.S. Naval Ordnance Lab., Corona, Calif., 1963
Consultant, NASA, Jet Propulsion Lab., 1963, 1970-71, 1973
Consultant, Wah Chang Corp., 1964
Consultant, Flomatcher Corp., 1965-67
Consultant, Foote Mineral Co., 1967-70
Consultant, Cornell, Howell, Hayes & Merryfield, 1968
Consultant, Evans Products Co., 1966, 1968-69, 1974
Consultant, Memorex Corp., 1971
Consultant, Weyerhaeuser Co., 1971
Consultant, Dow Chemical Co., 1973

FIELDS OF SPECIALIZATION

Electrochemistry and Electrochemical Engineering including the fields of energy conversion, corrosion, electrical conductivities, current distribution and gravitational effects on electrochemical processes. Properties and physics of porous and dispersed phases. Chemical Engineering Plant Design.

PROFESSIONAL ACTIVITIES

Registration

State of Oregon, No. 4858

Professional Societies

Electrochemical Society
American Institute of Chemical Engineers

MEREDITH, Robert Eugene

Professional Recognition

Past President, Sigma Xi, OSU Chapter, 1966-67
Member, Board of Theoretical Division, Electrochemical Soc., 1959-74
Member, Honors and Awards Subcommittee, Electrochemical Soc., 1959-60
Chairman, Pac. Northwest Section, Electrochemical Soc., 1966
Chairman, Pysical Electrochemistry Division, Electrochemical Soc., 1970-72
Member, Board of Directors, Electrochemical Soc., 1970-72
Chairman, Chemical Engineers of Oregon, 1968-69
Member, Undergraduate Curriculum Committee, A.I.Ch.E., 1959
Senior Post-Doctoral Resident Research Associate, National Academy of Sciences, 1966-67
Sigma Xi
Tau Beta Pi

PUBLICATIONS

Books

"Conduction in Heterogeneous Systems," Vol. II, Advances in Electrochemical Engineering, Edited by P. Delahay and C. W. Tobias, Interscience, New York, 1962
Contributor to: "Encyclopedia of Electrochemistry," edited by Clifford Hampel, Reinhold, New York, 1964.

Technical Journals

"Resistance to Potential Flow Through a Cubical Array of Spheres," J. of Applied Physics 31, 1270, (1960) and 32, 132, (1961).
"Conductivities in Emulsions," J. of the electrochemical Soc. 108, 286-290, 1961.
"The Role of Current Distribution in Cathodic Protection," Materials Protection, 2, nr. 2, pp. 39-42, 1963.
"A High-Temperature Solid-State Battery," Electrochemical Technology 5, 32-34, 1967.

Conference Proceedings

"The Oxygen Electrode in Molten Carbonates," Proceedings of the Interagency Advanced Power Group, October 1961.
"Theoretical Evaluation of Hot Spot Temperature of Silver-Zinc Batteries," Proceedings of the Intersociety Energy Conversion Engineering Conference, 1968 Record, pp. 32-37.

Reports & Others

"Studies on the Conductivities of Dispersions, "Univ. of Calif. Radiation Lab. Report (UCRL 8667), 1959.
"Electrowinning Copper and Zinc from Oregon Mines," Oregon Dept. of Planning and Development No. 46, 1962.
"Electrodeposition Studies of Molybdenum, Tungsten, and Vanadium in Organic Solvents," U.S. Bureau of Mines Report of Investigations, R.I. 6303, 1963.

Reports & Others (cont)

"Gravitational Effects on Electrochemical Batteries," NASA Technical Report 32-1570 67 pages, 1972

CONSULTING AND EMPLOYMENT EXPLANATION

Union Oil Co.
Solved some asphalt and lube oil production problems.

California Research Corp.
Performed capacity studies on the limiting factors in a crude oil distillation column.

U.S. Bureau of Mines
Devised techniques for electro-plating some uncommon metals from organic solvents.

Pacific Power & Light Co.
Performed feasibility studies on the use of battery powered cars and advised the Research Director with regard to industrial support on the project.

U.S. Naval Ordnance Lab.
Developed a battery for use in high temperature applications.

NASA, Jet Propulsion Lab.
Advised on the expected behavior of battery performance in low gravitational fields.

Wah Chang Corp.
Aided in corrosion studies.

Flomatcher Corp.
Studied electrolytes for high current density a.c. use.

Foote Mineral Co.
Helped evaluate diaphragm performance in manganese cells.

Cornell, Howell, Hayes and Merryfield
Aided in design of a chemical recovery system to stop water pollution for a client. Studied properties of sodium thiocyanate.

Evans Products Co.
Evaluated battery separators. Help develop a new plastic separator.

Memorex Corp.
Conducted an investigation, as an impartial party with attorneys, on the misuse of company secrets by former employees of the company.

Weyerhaeuser Co.

Devised a calibration technique so that reduced sulfur compounds could be monitored in stack gases with conventional methods.

Dow Chemical Co.

Conducted a "state of the art" investigation on the current status of fuel cells. Studied hydrogen usage in energy conservation.

#7311

DEPARTMENT OF JUSTICE

Memorandum

DATE: October 4, 1974

TO: F. B. Klaboe
Administrator and State Highway Engineer

FROM: Leslie B. Hampton LBH
Assistant Chief Trial Counsel

SUBJECT: Anderson-Hanna vs. State
L-7122

Contribute file in #7314

This will confirm that your deposition has been scheduled for October 24 at 10:00 a.m. in the Highway Building. We will contact you earlier that week to discuss the deposition.

nd

RECEIVED
OCT 7'74
REFER TO
FOR

7211

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

E. 7/a work

NOTED
H. S. COULTER

August 21, 1974

Union Pacific Railroad Company
1416 Dodge Street
Omaha, Nebraska 68179

Re: Bill No. 216908
Month's Account 4-1974
GB-81 Dept. No. 476
Amount: $799.55

Attention: R. D. Nikodym, Supervisor
Accounts Receivable

Dear Mr. Nikodym

In reply to your inquiry of July 8, 1974, please be advised that this work was done for the contractor on this job and would be one hundred percent payable by the contractor.

The contract was completed April 27, 1973, and was accepted July 5, 1973, and the final release of all retainage was made on August 2, 1973.

This was followed by a claim settlement on December 27, 1973. We were not aware that the Railroad had any outstanding bills and did not receive the first billing from you until April 8, 1974.

Inasmuch as we do not have any retainage left from this contract, and as the bill was submitted over a year after the contract was completed and about nine months after it was accepted by the Highway Division, there is no way that we can pay this bill.

I would suggest that you refer this bill directly to the contractor.

We are not in a position to make payments of bills which are delayed such as this one. It appears that the work was done

RECEIVED
AUG 22 1974
Office of
Assistant State Highway Engineer

in the Fall of 1973, and that the Railroad company was aware of the fact that the contract had been completed.

Perhaps some method should be worked out whereby the Railroad can advise the Highway Division of any outstanding billings they have on contracts so that retainage may be kept on hand to pay such claims.

Sincerely

Jack L. Sollis
Assistant Attorney General

gv
cc: H. S. Coulter
Richard J. Hacek
James E. Chidsey

7311

A. E. Johnson
8

OREGON STATE HIGHWAY DIVISION

REGION 1

P.O. BOX 02157 • PORTLAND 97202 • Phone 654-7741, Ext. 262

May 24, 1974

TOM McCALL
GOVERNOR

GEORGE M. BALDWIN
Administrator of Highways

RECEIVED
STATE HWY ENGR
MAY 29 '74
REFER TO
FOR
Info | Eval | Ltr | Dft | Sign | Ret | File

JOHN L. BEATON
Materials and Research Engineer
Division of Highways
5900 Folsom Blvd.
Sacramento, CA 95819

Dear Mr. Beaton:

During the construction of the Fremont Bridge and its approaches in Portland, a $75 million project, a serious problem developed regarding the water-borne inorganic zinc primer paint. Within 2-3 months after application, and before topcoating, the structural steel which had this primer applied began to show rust. The direct cost of repairing this paint breakdown was about $300,000 and the indirect impact costs to the project are alleged to be many times that amount.

This paint was applied in a controlled-environment paint shed in Vancouver, B.C. The paint used was Exxon's RB 191 and 193, and curing acid was used to accelerate the cure.

The painting subcontractor has submitted an analysis of the problem stating that the breakdown was caused by attack of the zinc paint by the SO_2 in the Portland environment. In the presentation Attorney Franzke has used a letter over your signature to illustrate the poor quality of this type of paint. For your convenience I have attached a copy of your letter and page 12 of the presentation.

It would be appreciated if you would amplify your statement that "it did not provide sufficient corrosion protection". Any information that you can provide relating to your experience with water-borne inorganic zinc which might shed some light on our problem

cy Karl Hoot
5-31-74

would be helpful. Incidentally, Oregon has stopped using this product on our maintenance painting of coastal bridges due to the problem of application and cure in the exposed, cool, humid environment.

Thank you for your cooperation.

Sincerely,

ORIGINAL SIGNED BY EDWARD L. HARDT

EDWARD L. HARDT
Regional Engineer

Attachments

ELH/cr
bc A. E. Johnson w/attach.
John Leahy w/attach.

STATE OF CALIFORNIA—TRANSPORTATION AGE[illegible] RONALD REAGAN, Governor
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS
ATERIALS AND RESEARCH DEPARTMENT
900 FOLSOM BLVD., SACRAMENTO 95819
5900

February 16, 1972

Mr. Richard A. Franzke
Twenty-Third Floor
900 SW Fifth Avenue
Portland, Oregon 97204

Dear Mr. Franzke:

This is in answer to your letter of February 10, 1972 relative to our use of zinc-rich primers.

The lithium silicate self cure type (water base) was abandoned in our 1971 Standard Specifications. It did not provide sufficient corrosion protection. We are enclosing copies of our self cure ethyl silicate inorganic systems. However, we will not specify their use in the future. The ethyl silicate systems are excellent, but are too complex and sophisticated in application properties. Any deviation in these properties can cause serious failures in adhesion and mudcracking of the dried paint film.

From exposure and salt spray testing to date we find that the phenoxy zinc rich primers not only provide excellent corrosion protection, but have eliminated most of the application limitations characteristic of the inorganic zinc rich primers (aqueous and ethyl silicate).

We trust this information will assist you.

Very truly yours,

JOHN L. BEATON, P.E.
Materials and Research Engineer

HAR:bd

Enclosures

RECEIVED
[illegible]

In summary, if OSHD persists in defining "faulty paint" simply in terms of whether the paint met the manufacturer's specification, there is no sense in examining the issue. However, if "faulty" defines whether the paint prevented the steel from rusting as in theory it is supposed to do, there is irrefutable evidence from OSHD, Carboline, Canron, Can Test and photographs that the paint permitted rusting to occur even in the presence of the specified coating thickness.[15]

The State's reasoning that "faulty paint" must not have been the cause of the rusting because the failure was "spotty" at the same time destroys its contentions that poor workmanship, application methods or use of accelerator are responsible. These issues will be discussed in more detail below.

A-2 PRIMER FAILED DUE TO PORTLAND ENVIRONMENT

ITEM: (OSHD p 5) The statement is made "This is the contractor's explanation for the failure of the zinc primer."

COMMENT: We have never claimed that we in fact know the cause of the primer failure; further we doubt that anyone else "knows" for certain or that we will ever know for certain why the zinc primer, on both of our projects as well as Murphy Pacific's, has not prevented rust as it theoretically should. What we have said, and still believe, is (1) the effects of the atmosphere are the ultimate cause of zinc deterioration, (2) the atmosphere in Portland reached a high level of SO_2 concentration in late 1970, which aggravates the attack, and (3) a seal coat would have avoided the problem.

---

15 The State of California has abandoned use of water base inorganic zinc "because it did not provide sufficient corrosion protection." See Exhibit 11. This is further evidence that the water base type specified by OSHD has been a disappointment in practice, failing to live up to its theoretical expectations.

7311

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

May 22, 1974

Mr. Leslie B. Hampton
Assistant Chief Trial Counsel
100 State Office Building
Salem, OR 97310

NOTED
E. S. HUNTER

Dear Mr. Hampton:

Illumination of Pacific Railroad Yard
East Fremont Interchange
Stadium Freeway, Multnomah County
Contracts 7310, 7311, 7312

As requested, we have taken illumination readings after installation of two floodlights in the Union Pacific rail yard at the East Fremont site. Enclosed are two copies of drawing 25303 showing, in red, the points where readings were taken and a xerox listing of illumination levels at these various points.

Readings were taken at the five points between piers 13 and 14 since this was the area in question. The adequacy of the remainder of the site was agreed to at the December 14, 1972 meeting.

It is felt that this installation should answer the objections of Union Pacific regarding this location.

Very truly yours,
ORIGINAL SIGNED
WALTER J. HART
Walter J. Hart
Bridge Engineer

RMD:dh
Enclosures
cc E. S. Hunter
Jack Sollis
R. N. Bothman /w/ encl.
E. L. Hardt
Robert Shotwell
James Chidsey /w/ encl.
Robert M. Dixson

RECEIVED
MAY 28 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

RECEIVED
STATE HWY ENGR
MAY 1 0 74
REFER TO
FOR

#7310

A. E. Johnson
8

OREGON STATE HIGHWAY DIVISION
INTER-OFFICE CORRESPONDENCE
Region 1 - Milwaukie
May 9, 1974

FILE:

FROM: EDWARD L. HARDT
Regional Engineer

SUBJECT: FREMONT BRIDGE APPROACHES
Inorganic Zinc Failure

TO: JOHN JENKINS
Engineer of Materials & Research

NOTED
F. B. KLABOE
A. E.

In November, 1973, I released an "Analysis of Zinc Primer Failure" covering the Fremont Bridge Approaches. Most of the technical information that I used regarding water-based inorganic zinc primer, the effect of the Portland environment on it, the function of the acid cure, etc, was obtained from discussions with Dean Mandrell of your staff.

Richard Franzke, attorney for Canron, has reviewed my analysis and submitted his comments. I have enclosed copies of these comments (pages 12-17, 28-49, 85-97) and related exhibits. These deal with (1) the Portland environment, (2) the State's test panel work, and (3) the operation of the acid cure.

You will note that Franzke has taken exception to the conclusions that I reached in my analysis. Please examine this material and give me your analysis of it. In addition to your general comments on Franzke's work, it would be helpful if you could provide answers to the following questions:

(1) Is the State's test panel program adequate to determine that the Portland environment is not harmful (within 6 months to 1 year) to water-based inorganic zinc, or is Saroyan correct when he says that "test panels prove nothing"?

(2) Were Portland's sulfer dioxide levels high enough during 1970-71 to cause the damage to the zinc which we experienced? On page 31 Franzke goes through some chemical manipulations to show that the film thickness loss would be 1 mil per 27-1/2 days with a wind velocity of 1 MPH. Is this possible?

(3) My understanding of the acid cure is that it is equal to or better than the natural cure. This was the basis for my conclusion that the curing operation is suspect because Saroyan has said that properly cured inorganic zinc can withstand pollutant attack. As pointed out by Franzke, perhaps the key here is that

Cy Hall Hart
5-13-74

curing is one thing and formation of water-insoluble salts is another. If the acid "cured" the paint but did not cause the salts to form that would resist the SO_2, then this would explain the failure that we experienced. The question is -- does the acid cure provide the same protection to the inorganic zinc paint as a natural cure?

(4) If the local pollution did cause the failure, would the effect have been a spotty, random failure such as we experienced, or should all of the paint treated essentially the same way have failed?

(5) Depending on the answers to the above questions, was the State remiss is not specifying a seal coat for the inorganic zinc primer?

Please bear in mind that the purpose of my analysis was to gather together all existing data relating to the paint failure in order to assess the State's position. We are still in that process. If, in fact, the Portland environment is harmful to the degree experienced to our inorganic zinc, then the question of faulty workmanship drops out of the picture and the propriety of our specifications becomes paramount. If the acid cure does not provide insoluble salts to protect the zinc, then the question of who ordered the cure becomes important. In essence, we are not trying to defend our position, we are trying to define it.

I have sent only that portion of Franzke's comments which pertain to the above questions for the sake of brevity. If you want or need more of it (total of 97 pages and 75 exhibits), please advise.

ELH/cr
Attachments
cc A. E. Johnson
John Leahy

7311

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Region 1 - Milwaukie

May 9, 1974

FILE:

FROM: EDWARD L. HARDT
Regional Engineer

TO: R. O. CUNNINGHAM
Metropolitan Planning Engineer

SUBJECT: FREMONT BRIDGE APPROACHES
Inorganic Zinc Failure

RECEIVED
STATE HWY ENGR
MAY 1074
REFER TO
FOR
Info | Init | Dft | D/R | Sign | Act | File

In November, 1973, I released an "Analysis of Zinc Primer Failure" covering the Fremont Bridge Approaches. One of the subjects that I covered was the behavior of the zinc primer on Murphy-Pacific's contract for the main span. My conclusion was that this primer performed satisfactorily as contrasted to the approach primer. This conclusion was based on my own observations to a degree but primarily on discussions with you, together with a report which you prepared for me. Please refer to pages 7 and 8 of my analysis.

Richard Franzke, attorney for Canron, has reviewed my analysis and submitted his comments. He has taken exception to my position as outlined above and instead contends that the main span primer behaved almost identically to the approach primer as to the kind and time of failure.

Attached you will find copies of pages 1 through 28, 84-85, and 94-97 of Franzke's comments, together with the related exhibits. Please examine this material and give me your analysis of it.

Please bear in mind that the purpose of my analysis was to gather together all existing data relating to the paint failure in order to assess the State's position. We are still in that process. If, in fact, the main span primer did fail similar to the approaches, then this would pretty well rule out faulty workmanship by Canron and point toward improper specifications as the cause of the problem. For this reason it is crucial that we have a clear, impartial understanding of the failure relationship of the two painting projects. In essence, we are not trying to defend our position, we are trying to define our position.

I have sent only that portion of Franzke's comments which pertain to Murphy-Pacific's paint for the sake of brevity. If you want or need more of it (total of 97 pages and 75 exhibits), please advise.

ELH/cr
Attachments
cc A. E. Johnson
John Leahy

cy Hael Hart
5-13-74

#7311

8

F.B.P.

OREGON STATE HIGHWAY DIVISION

REGION 1

P.O. BOX 02157 • PORTLAND 97202 • Phone 654-7741, Ext. 262

May 9, 1974

TOM McCALL
GOVERNOR

GEORGE M. BALDWIN
Administrator of Highways

Mr. Frank Koehler
Exxon Chemical Company
P. O. Box 201
Florham Park, New Jersey 07932

Fremont Bridge Inspection

Dear Frank:

I have your May 3 letter regarding your recent visit to Portland. At that time you mentioned that within a week or two we would have Exxon's comments on John Saroyan's work on the Fremont inorganic zinc failure, as well as your comments on my analysis of the problem.

I am presently analyzing Attorney Franzke's latest comments on the problem. It would be helpful if I had your review of this problem in hand for my work. Can you give me some idea when I might expect your review? Incidentally, my address is as shown above.

Sincerely,

Edward L. Hardt
Regional Engineer

RECEIVED
STATE HWY ENGR
MAY 10'74
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

ELH/cr
bc A. E. Johnson
John Leahy

cy Hall Hardt 5-13-74

E-123

EXXON CHEMICAL COMPANY U.S.A.

P. O. Box 201, Florham Park, New Jersey 07932

SPECIALTIES DEPARTMENT
INDUSTRIAL COATINGS DIVISION
J. FRANKLIN KOEHLER
Manager - Marine and Export Sales

EXXON CHEMICALS

May 3, 1974

RECEIVED
REGION 1
MAY 09 1974
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SO RSM RSC RBI ENV LOC

Mr. E. L. Hardt
District Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Inspection
Fremont Bridge

Dear Ed:

I wish to express our sincere appreciation for your courtesy in taking time to meet Don Wood, John Owen and myself last month and for showing us the Fremont Bridge structure. While our primary objective was to introduce Don Wood to you and to have him see the Fremont Bridge, Mr. Franzke's efforts to get us to cancel our visit created a somewhat difficult situation. Nevertheless, we all did find our visit to be of interest and we do thank you for your kindness in meeting us at the airport and in giving us the "guided tour".

We were pleased to have the opportunity of meeting Mr. John Leahy and found his remarks regarding the potential claim situation to be helpful in understanding the present status of the subject problem. I especially want to thank you for the informative pamphlets on Oregon and for your kindness in presenting me with a new case for my Norelco cassette recorder. I hope I will have more time to visit with you during my next trip to the West Coast...meanwhile, best personal regards.

Yours very truly,

J. F. Koehler

JFK/emd

P.S. I am forwarding under separate cover a copy of our latest issue of our Coastline book series "Cape May to Montauk Point" which I hope you will find to be of interest.

cc: A E Johnson & John Leahy

#7311

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
106 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

January 25, 1974

Mr. A. E. Johnson
Deputy State Highway Engineer
State Highway Building
Salem, OR 97310

RE: Contractor's Claim - East Fremont Interchange
and West Fremont Interchange

Dear Mr. Johnson

Attached please find a copy of my January 16, 1974, letter relating to these two claims. I evidently misunderstood Mr. Leahy's request on this matter and it is not necessary that all copies of the request for time extension on these contracts be gathered together and forwarded to him. If this project has not yet been completed it maybe terminated.

My misunderstanding of Mr. Leahy's instructions is because he was requesting a copy of the complete file relating to the time extension matters and not that he wanted all copies from the various offices collected. If you have any questions regarding this matter please do not hesitate to contact me.

Sincerely yours

Jack L. Sollis
Assistant Attorney General

NOTED -
H.S.COULTER

JLS:clh
Attachment
cc: John Leahy

RECEIVED
STATE HWY ENGR
JAN 25 '74
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FOR
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1-28-74
Leahy
TAB

- cy Kansen
Hall Hav!
1-28-74

xxxxxxxxxxxxxxxxxxxx

408 State Highway Building

January 16, 1974

Mr. A. E. Johnson
Deputy State Highway Engineer
State Highway Building
Salem, Oregon 97310

Re: Contractor's Claim - East Fremont Interchange and
West Fremont Interchange

Dear Mr. Johnson

Mr. John Leahy, who is now handling these claims, has asked that all copies of the request by the Highway Division to the Federal Highway Administration for a time extension on both of these contracts be gathered together and forwarded to him. This would include all copies of the request from the contractor in any related correspondence.

Mr. Leahy does not want any copies of this information left in the Resident Engineer's office, Regional Engineer's office or any Administrative office here in Salem. He wants to have all copies in his file. In cases where it is necessary a memo should be placed in the file indicating that these have been sent to Mr. Leahy.

If you have any questions regarding this matter please do not hesitate to contact me.

Sincerely

LEE JOHNSON
Attorney General

Jack L. Sollis
Assistant Attorney General

JLS:hg

7311

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
106 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

January 23, 1974

NOTED
L. L. Johnson

Mr. Preston C. Hiefield, Jr.
Attorney at Law
Boise Cascade Building
Portland, Oregon 97201

Re: Fremont Bridge Impact Claim of Drake Willamette J.V.
on Contracts numbered 7310, 7311 and 7312.

Dear Mr. Heifield

For the purpose of clarifying OSHD's position on the above matter with regard to limitation of suits or action provision in Section 9-16 of the "Standard Specifications for Highway Construction 1964", you are notified that the above claim including the subcontractor claims included therein are rejected.

Sincerely

John Leahy
Chief Trial Counsel

am
cc: Norman Kobin
✓F. B. Klaboe
Walter Barrie
Richard Franzke

NOTED
F. B. KLABOE

RECEIVED
STATE HWY ENGR
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FOR
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cy - Contr.
Gal/Hart
1-29-74

7311

January 22, 1974

Mr. John Leahy
Chief, Trial Section
Department of Justice
State Office Building
Salem, OR 97310

Yellow in #7310

Dear Mr. Leahy:

Re: Contractor Claims

For over a year negotiations have been carried on over a claim on the East and West Fremont Bridge projects. These negotiations have not been fruitful.

It is now requested that your Department take over and handle these cases for us. Our engineers will be instructed to work with you in any way you see fit.

Very truly yours,

F. B. Klaboe
Administrator and
State Highway Engineer

FBK:ms
cc Walt Barrie
bc A. E. Johnson
H. S. Coulter
W. J. Hart
Ed Hardt
C. T. Keasey
R. N. Bothman

7311

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
TRIAL DIVISION
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313
408 State Highway Building

January 16, 1974

Mr. A. E. Johnson
Deputy State Highway Engineer
State Highway Building
Salem, Oregon 97310

NOTED
A. E. JOHNSON

original in #7310

Re: Contractor's Claim - East Fremont Interchange and
West Fremont Interchange

Dear Mr. Johnson

Mr. John Leahy, who is now handling these claims, has asked that all copies of the request by the Highway Division to the Federal Highway Administration for a time extension on both of these contracts be gathered together and forwarded to him. This would include all copies of the request from the contractor in any related correspondence.

Mr. Leahy does not want any copies of this information left in the Resident Engineer's office, Regional Engineer's office or any Administrative office here in Salem. He wants to have all copies in his file. In cases where it is necessary a memo should be placed in the file indicating that these have been sent to Mr. Leahy.

If you have any questions regarding this matter please do not hesitate to contact me.

Sincerely

LEE JOHNSON
Attorney General

NOTED
A. E. JOHNSON

Jack L. Sollis
Assistant Attorney General

JLS:hg,

RECEIVED
STATE HWY ENGR
JAN 17 '74
REFER TO
FOR
Info | Approval | D/D | D/R | Sign | Ltr | File

Orig-Courts
Cy- Ed Hurdt
Keaney
-CBK
1-18-74

7311

January 2, 1974

Davies, Biggs, Strayer
Stoel and Boley
Twenty-Third Floor
900 S.W. Fifth Avenue
Portland, OR 97204

Attention: Richard A. Franzke

Gentlemen:

This is to acknowledge receipt of your letter of December 27, 1973, informing us that Willamette River Constructors owes your client, Canron Limited, $453,197.60 for structural steel and related items.

From the description given in your letter, this appears to be in reference to the Willamette River Constructors (joint venture-Donald M. Drake Co. & Willamette-Western Corp.) contracts numbers 7310 and 7311 for work on the East Fremont Interchange, Unit A and Unit B, section of the Stadium Freeway in Multnomah County.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bonds on these contracts. We will advise them of the receipt of your client's claim, and we will also forward it to the Secretary of State for filing.

Please advise this office when your client's claim has been satisfied.

Very truly yours,

C. W. Head, Manager
ADMINISTRATIVE SERVICES

js
cc: The Travelers Indemnity Company
General Insurance Co. of America
Willamette River Constructors

Hon. Clay Myers - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

Noted on Card

7311

5

Claim C852

FILED
JAN - 3 1974
CLAY MYERS
SECRETARY OF STATE

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

January 2, 1974

Davies, Biggs, Strayer
Stoel and Boley
Twenty-Third Floor
900 S.W. Fifth Avenue
Portland, OR 97204

Attention: Richard A. Franzke

Gentlemen:

This is to acknowledge receipt of your letter of December 27, 1973, informing us that Willamette River Constructors owes your client, Canron Limited, $453,197.60 for structural steel and related items.

From the description given in your letter, this appears to be in reference to the Willamette River Constructors (joint venture-Donald M. Drake Co. & Willamette-Western Corp.) contracts numbers 7310 and 7311 for work on the East Fremont Interchange, Unit A and Unit B, section of the Stadium Freeway in Multnomah County.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bonds on these contracts. We will advise them of the receipt of your client's claim, and we will also forward it to the Secretary of State for filing.

Please advise this office when your client's claim has been satisfied.

Very truly yours,

NOTED ON CARD
1/16/74

C. W. Head, Manager
ADMINISTRATIVE SERVICES

NOTED
C. W. HEAD
REC 1/4/74

js
cc: The Travelers Indemnity Company
General Insurance Co. of America
Willamette River Constructors

Hon. Clay Myers - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES R. ROGERS
RICHARD DEVERS
GEORGE M. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
EDWARD L. EPSTEIN
BRIAN G. BOOTH
WILLIAM M. McALLISTER
BARNES H. ELLIS
HOWARD M. FEUERSTEIN
PHILLIP D. CHADSEY
KENNETH D. STEPHENS

JOHN E. HUISMAN
BERTRAND J. CLOSE
VELMA JEREMIAH

DAVID P. MILLER
TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
JERE M. WEBB
RONALD S. GROSSMANN
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
JOY D. ABELE
DONALD J. BOYD
WILLIAM G. MIGELY
GREGORY J. HOWE
JOHN M. SCHWEITZER
WILLIAM F. MARTSON, JR.
MICHAEL M. MORGAN
RICHARD M. BOTTERI
LESTER V. SMITH, JR.
PHILIP RUBIN
THOMAS R. NICOLAI
JON W. NICKEL
WILLIAM A. MASTERS
DOUGLAS B. GORDON
ROBERT L. NASH

December 27, 1973

C. W. Head, Manager
Administrative Services
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Mr. Head:

Enclosed are duplicate originals of a Notice of Claim by Canron Limited against Drake-Willamette for work performed on East Fremont Bridge Approaches. Please advise the General Insurance Company of America and The Travelers Indemnity Company of your receipt of this claim and forward it to the Secretary of State for filing.

Very truly yours,

Richard A Franzke fmm

Richard A. Franzke

RAF:mm
Enclosures
cc: Mr. Bruce Jackson

RECEIVED
DEC 31 1973
HIGHWAY
ADMINISTRATIVE SERVICES

7311

NOTICE OF CLAIM

TO: Oregon State Highway Division
(Department of Transportation)
Highway Building
Salem, Oregon 97310

Notice is hereby given that the undersigned CANRON LIMITED has a claim for labor and materials furnished by Canron Limited to Drake-Willamette, a joint venture, (aka Willamette River Constructors) in connection with structural steel and related items in the sum of

Four Hundred Fifty-Three Thousand One Hundred Ninety-Seven and 60/100 Dollars ($453,197.60)

against the bond taken from Drake-Willamette, a joint venture, (aka Willamette River Constructors) as Principal, and General Insurance Company of America and The Travelers Indemnity Company, as Co-sureties, for the work performed on East Fremont Bridge Approaches, State Highway Contracts Nos. 7310 and 7311.

CANRON LIMITED

By: Davies Biggs Strayer Stoel & Boley

Edward G. Trompke

Attorneys

Date: 12/28/73

RECEIVED
DEC 31 1973
HIGHWAY
ADMINISTRATIVE SERVICES

FREMONT BRIDGE COMPLEX PROJECT INFORMATION

PROJECT	CONTRACT NO.	CONTRACTOR	DATE AWARDED	DATE COMPL.	LENGTH (LANE FT.)	QUANTITIES STRUCT. STEEL (LBS.)	QUANTITIES CONCRETE (CY)	QUANTITIES REINFORCE. (LBS.)	ENGINEERING CONSULTANT	EXPENDITURES CONTRACT AMOUNT	EXPENDITURES TOTAL* AMOUNT	EXPENDITURES AMOUNT FOR ENGINEER CONSULT.
Fremont Bridge Pier Const.	7124	Peter Kiewit Sons' Co.	2-27-68	5-13-70	N/A	520,000	38,000	1,950,000	Parsons, Brinkerhoff, Quade & Douglas	3,957,623	4,188,200	Included in below
Fremont Bridge Superstructure	7276	Murphy-Pacific Enterprises	7-3-69	11-9-73	17,300	17,450,000	3,910	1,010,000	"	27,391,510	28,817,125	905,878**
West Fremont Interchange	7214	Anderson-Hannan	4-29-69	10-19-72	36,000	15,952,000	65,647	19,150,000	Howard, Needles, Tammen & Bergendoff	19,348,137	20,288,500	1,442,202
West Fremont Interchange (Unit 2)	7623	Drake-Willamette	8-26-71	5-5-73	Included in above	126,200	11,270	3,885,300	"	3,274,682	3,586,900	Included in above
East Fremont Interchange, Unit "A"	7310	Drake-Willamette	9-11-69	4-27-73	32,000	16,156,000	19,817	4,388,500	"	13,175,308	14,089,500	Included in above
East Fremont Interchange, Unit "B"	7311	Drake-Willamette	9-11-69	5-25-73	Included in above	8,740,800	15,725	2,989,400	"	9,026,940	9,450,000	Included in above
East Fremont Interchange, Unit "C"	7312	Drake-Willamette	9-11-69	11-28-72	Included in above	352,500	8,252	2,712,000	"	2,058,970	2,160,000	Included in above
TOTALS					85,300	59,297,500	162,621	36,085,200		78,233,168	82,580,225	2,348,080

TOTAL COST FREMONT BRIDGE COMPLEX $84,928,305

* Includes Additional Anticipated Items, Contingencies, and Construction Engineering
** Includes investigation of in-service crack

NOTED
E. S. HUNTER

RECEIVED
DEC 3 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

7211

November 21, 1973

TO G. L. Green, Division Engineer
Federal Highway Administration

FROM L. H. Young
Office Engineer

Federal-aid Project
No. I-405-8(23)304

SUBJECT Request Change Order Approval

Contract 7311, State Force Order No. 7

Project East Fremont Interchange, Unit 3

Highway Stadium Freeway

County Multnomah

This order covers the installation of traffic lane markers throughout the project. All work to be paid for under this order will be performed by the Traffic Marking Specialist Co., a company who has contracted with the State Maintenance for this type work throughout the state. As this work was not included in the contract and the contractor has completed his work, it is in the public interest to have this work performed by the maintenance contractor.

Copies of the Engineer's letter of explanation are attached.

The estimated cost of this work is $1,922.80 with Federal participation in the amount of $1,730.52. Reimbursement on a unit price basis is requested.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer October 12, 1973.

Your approval as of October 12, 1973 is requested.

Attach.

BHW:js

7311

November 23, 1973

TO G. L. Green, Division Engineer
Federal Highway Administration

FROM L. H. Young
Office Engineer

Federal-aid Project
No. I-405-8(23)304

SUBJECT Request Change Order Approval

Contract 7311, State Force Order No. 6

Project East Fremont Interchange, Unit B

Highway Stadium Freeway

County Multnomah

This order covers the cost of permanent striping throughout the project. The contractor has completed his work and left the project. The State has the necessary special striping equipment and trained personnel to perform the work most economically.

Federal participation will be based on the agreed price for striping. The estimated cost of this work is $866.70 with federal participation in the amount of $780.03. Reimbursement on an agreed unit price basis is requested.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer October 12, 1973.

Your approval as of October 12, 1973 is requested.

Attach.

BMW:lsk

7311

November 23, 1973

Schwartz & Dreifus
Attorneys at Law
5670 Wilshire Boulevard
Los Angeles, California 90036

Attention: Arnold M. Schwartz

Gentlemen:

This is in reply to your letter of November 19, 1973, concerning the Donald M. Drake Company and Willamette-Western Corporation Contracts in Multnomah County.

The completion and acceptance dates are as follows:

Contract No. 7310
Unit A
Completed April 27, 1973
Accepted July 5, 1973

Contract No. 7311
Unit B
Completed May 25, 1973
Accepted July 5, 1973

Contract No. 7312
Unit C
Completed November 28, 1972
Accepted February 2, 1973

Very truly yours,

C. W. Head, Manager
ADMINISTRATIVE SERVICES

CWH:ks

SCHWARTZ & DREIFUS
ATTORNEYS AT LAW

ARNOLD M. SCHWARTZ
JORDAN A. DREIFUS

8670 WILSHIRE BOULEVARD
LOS ANGELES, CALIFORNIA 90036
(213) 837-5311

CABLE ADDRESS: SCHWARD

November 19, 1973

Mr. Cecil W. Head, Manager
Administrative Services
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

RE: East Fremont Interchange
Units A, B, and C

Dear Mr. Head:

This letter is written to you in confirmation of information given to me by telephone from your office on Friday, November 16, 1973. At that time, I placed a long distance call to your office, I found that you were away from the office, and in your absence I was given the following information:

Contract No. 7310 was completed and the date of completion is July 5, 1973.

Contract No. 7311 was also completed on July 5, 1973 and that said date is the date of actual completion of work.

Contract No. 7312 was completed February 2, 1973.

We will be relying on these dates in connection with our representation of one of the subcontractors of Drake-Willamette. Your records indicate that on September 28, 1973, you wrote to Klaas Bros., Inc. and advised them of the fact that the prime contractor was bonded by The Travellers Indemnity Company and by General Insurance Company of America.

In order that our record in this office, on behalf of Klaas Bros., Inc., is complete, we shall appreciate your issuing the appropriate certificate reflecting the effective completion dates on the three contracts. Please forward such a certificate directly to this office. If there is a charge

for the certificate, please issue the certificate and your bill at the same time and forward them together. We will remit by return mail.

Your cooperation is much appreciated.

Yours very truly,

ARNOLD M. SCHWARTZ

AMS:sb

cc: Frank Klaas

RECEIVED
NOV 21 1973
HIGHWAY
ADMINISTRATIVE SERVICES

#7311

LEE JOHNSON
ATTORNEY GENERAL

RECEIVED
STATE HWY ENGR
NOV 13 '73
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FOR
Info | Inves | R/D | B/R | Sign | Act | File

STATE OF OREGON
DEPARTMENT OF JUSTICE
PORTLAND, OREGON 97201

November 9, 1973

NOTED
A. E. JOHNSON

Pittsburgh Testing Laboratory
Portland Office
611 S.E. Harrison
Portland, Oregon

Attention: Donald Scott, Manager

Re: (1) Inspection Contract of September 30, 1969
Involving the West Fremont Interchange
(2) Inspection Contract of December 23, 1969
Involving the East Fremont Interchange

Gentlemen:

This is to advise you that there may be potential liability of your company concerning its work done in inspecting the application of the zinc primer coating of steel girders at Canron, Ltd. in Vancouver, British Columbia.

The impact claims of Drake-Willamette and Anderson-Hannan joint ventures and Canron, Ltd. are being evaluated with the purpose of avoiding protracted litigation over the Fremont Bridge construction. Therefore, please forward this letter to your counsel or insurer and have them contact me at their earliest convenience so that they may be appraised of your company's potential liability and participate in settlement negotiations.

This letter is also to advise you that the State of Oregon, Highway Division, hereby makes formal demand upon you to make available for our inspection and copying all records pertaining to your inspection of the process at Canron, Ltd. pursuant to Section III, Paragraph 5 of your contracts as noted above.

cy Coulter
Kenney
Yost
Bachman
Cunningham
11-13-73

Since it is necessary that you become involved and appraised of this situation as soon as possible, I would appreciate your earliest attention to this matter.

Sincerely,

JOHN H. CLOUGH
Assistant Attorney General

pjw
bcc: Walt Barrie
Al Johnson
Fred Klaboe
Ed Hardt

#7311

OREGON STATE HIGHWAY DIVISION

November 9, 1973

NOTED
A. E. JOHNSON

Exxon Chemical Company
P. O. Box 201
Florham Park, N.J. 07932

Attention: J. F. Koehler

Gentlemen:

Fremont Bridge Inorganic Zinc Paint Failure

Part of our investigation of the failure of Rustban 193 inorganic zinc on the Fremont approaches in Portland was the submission to Mr. John Saroyan of a series of questions regarding this type of paint. This was done jointly by the Oregon State Highway Division and Canron the painters.

Attached you will find a copy of these questions together with Mr. Saroyan's answers. As discussed with you by phone today, we would like your technical people to review these answers, in particular those that deal with the effect of the Portland environment on the primer, and advise us of their comments. Your efforts in this regard will be appreciated.

RECEIVED
STATE HWY ENGR
NOV 13 '73
REFER TO
FOR
Talp | Graves | Cyp | Coe | Sims | Hart | Cunningham

Very truly yours,

C. T. Keasey
Construction Engineer

By ORIGINAL SIGNED
EDWARD L. HARDT
E. L. Hardt
Construction Field Engineer (Bridge)

ELH:lb

cc: Jack Clough
A. B. Johnson (Encl.)
Jack Sollis

cy Coulter
Boatman
Hart
Cunningham
11-13-73

E-123

I-405-8(23) E. Fremont Interch. Sec., of 1970
304 Stadium Frwy., in Portland
#7311 (Unit B) Folder #2

7311

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

October 10, 1973

Drake-Willamette
1740 NW Flanders Street
Portland, OR 97209

Gentlemen:

Your impact claim for $2,289,019.65 submitted on the East Fremont Interchange Project, contracts 7310, 7311, and 7312 has been analyzed and reviewed. This review indicates that there is no basis in fact for the claim and it is hereby rejected.

Very truly yours,

ORIGINAL SIGNED BY
F. B. KLABOE

F. B. Klaboe
Administrator and
State Highway Engineer

NOTED
A. E. JOHNSON

ELH:sh kmb
bc: A. E. Johnson
Walt Hart
R. N. Bothman
Bob Shotwell
C. T. Keasey
Jack Sollis
Jack Clough, Assistant Attorney General
Department of Justice

CONTRACTORS
DEVELOPERS

TELEPHONE (503) 226-3991

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
INCORPORATED JANUARY 2, 1973

October 9, 1973

Mr. F.B. Klaboe, Administrator
and State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Reference: East Fremont Interchange Impact Claim

Dear Mr. Klaboe:

On September 12, 1973, you advised us by letter that your review of subject claim was taking longer than you had anticipated, but that it would be concluded in two or three weeks.

We are concerned with the rate of progress of your review. In addition, through discussion with our subcontractor's counsel, Mr. Richard Franzke, it now seems your investigation could be proceeding in a new direction.

Since you have not responded further, we request a meeting in order for us to be fully appraised of the current status of our claim.

Because of his involvement relative to that part of our claim dealing with paint problems, we expect to have Canron's attorney, Mr. Franzke, in attendance if such a meeting can be arranged. We also anticipate inviting our own attorney, Mr. Hiefield, as well as Mr. Kobin, who represents Willamette-Western, to join us. On that basis, we naturally expect your own cousel will be present.

In considering commitments of those persons mentioned above, either Thursday or Friday, October 18 or 19, would be convenient. I will appreciate your advising me if your own schedule will permit a meeting on either of the above dates.

RECEIVED
STATE HWY ENGR
OCT 10 '73
REFER TO
FOR
Info | Invest | N/D | D/R | Sign | Act | File

Very truly yours,

DONALD M. DRAKE COMPANY

R. E. Grant, Vice President
Construction

REG:br

a69

7311

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

10-10-73 Clr. Head's office and original

October 8, 1973

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Attn: C. W. Head, Mgr. - Administration Services

Ref: E. Fremont Interchange
O.S.H.D. Contracts No. 7310, 7311 & 7312
Klaas Bros., Inc. Claim of September 20, 1973

Gentlemen:

There appears to be several points which need clarification regarding the subject claim by Klaas Bros., Inc.

The $133,912.78 consists of the following items:

1.	Zinc Primer portion of major claim pending before the Oregon State Highway at this time.	$ 97,138.50
2.	Latex paint repair work in Contracts No. 7310 & 7311.	$ 14,733.75
3.	Unpaid open account work for Drake-Willamette Joint Venturer.	$ 4,509.47
4.	Retention unpaid.	$ 17,529.06
	Total	$133,910.78

The solution to Item 1, according to O.S.H.D. letter of September 12, 1973, was to have been handed down by the O.S.H.D. not later than September 26, 1973. Answer is still pending from the O.S.H.D. The latex paint repair claim was rejected by the O.S.H.D. by letter of September 12, 1973. Klaas Bros. Inc., was so notified. Frank Klaas requested an appeal to this problem and permission to appear before the Claims Review Board was requested on October 1, 1973. An answer to this appeal request has not yet been received.

Item 3, unpaid open account work for Drake Willamette Joint Venturer, has not been settled. The various items comprising this amount were not paid because they were beyond the scope of our contract with Klaas Bros., Inc. They are claiming costs which are fully deniable under that contract.

Russ gave a copy to Kloboe

Finald Rentention has not been paid for two reasons, to wit:

1. There is a pending claim against Klaas Bros., Inc. by Mr. Wayne Kensington of 4910 S. W. 160th Avenue, Beaverton, Oregon 97005. This claim requests removal of latex paint from his 1969 - ½ ton International Pickup truck, Oregon License No. CCQ475, and repair to paint surfaces.

2. Klaas Bros., Inc. refuses to sign a lien waiver form. Definite procedures have been spelled out to Klaas Bros., Inc., whereby they may utilize our lien waiver forms.

Resolution of these 2 items by Klaas Bros. will permit immediate release of the retention amount.

At no time prior to receipt of the Klaas Bros., Inc. letter of September 20, 1973 to the Oregon State Highway Commission, has accrued interest been intimated or mentioned.

Please also note that there is a $2.00 error in the summation of figures contained in the aforesaid Klaas Bros., Inc. letter.

As you will also note, the bulk of the solution to the Klaas Bros. claim rests with the Oregon State Highway Department.

Please do all in your powers to expedite their resolutions of the zinc primer and latex repair portions of this claim.

Very truly yours,

DRAKE-WILLAMETTE JOINT VENTURERS

John R. Gray
Project Manager

JRG:db

NOTED
C. A. HEAD

7311

5

FORM E-26

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE October 2, 1973

TO Mr. A. E. Johnson
Deputy State Highway Engineer

FROM Edward L. Hardt
Construction Field Engineer

SUBJECT Zinc Primer Failures
East and West Fremont Interchanges

One of the points which Canron raised in their presentation of the failure of the inorganic zinc primer on the Fremont approaches was the possibility that rust stain running off the top flanges of the girders may have contributed to the breakdown on the primer itself. We have looked at the breakdown with this in mind and have never been able to make a correlation, that is we have never found that the primer that had stain was anymore deteriorated than that without.

In order to put this item to rest completely, if that is possible, we would propose making a field test this coming winter of rust stain on Rust-Ban 193 Inorganic Zinc. We would do this by painting sections of plate, inclining them in the same fashion as the webs on the trapezoidal girders and then allowing a rusty plate to drain on them to simulate the actual girder condition. By means of paint thickness readings, we hope to be able to determine whether the rust staining could have had any effect on the primer failure on the projects.

If you concur in this experimentation, please advise and we will proceed.

ELH/ag

cc J. Howard
R. Shotwell
H. D. Mandrell
J. Clough
A. C. Harwood

cy. Ed Hardt
Hunter
Coulter
Bothman

RECEIVED
STATE HWY ENGR
OCT 5 '73
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

RECEIVED
DEPUTY STATE HIGHWAY ENGINEER
Date 10-8-73

7311

September 28, 1973

Klaas Bros., Inc.
2012 Hyperion Avenue
Los Angeles, California 90027

Gentlemen:

This is to acknowledge your letter of September 20 informing us that Willamette-Western Constructors, a joint venture, owes you $133 912.78 plus interest for work, labor, services and materials.

From the description included in your letter, this appears to be in reference to Willamette River Constructors, Contracts Nos. 7310, 7311 and 7312, for work on the East Fremont Interchange, Units A, B, and C, Section of the Stadium Freeway in Multnomah County.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bond on these contracts. We will advise them of the receipt of your claim and we will also forward it to the Secretary of State for filing.

Please advise this office when your claim has been satisfied.

Very truly yours,

C. W. Head, Manager
ADMINISTRATIVE SERVICES

RMG:fkn
cc Willamette River Constructors
The Travelers Indemnity Company
General Insurance Company of America

Hon. Clay Myers - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

NOTED ON CARD
9/28/73

7311

4832

5

FILED
OCT - 1 1973
CLAY MYERS
SECRETARY OF STATE

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

September 28, 1973

NOTED ON CARD
10-2-73

Klaas Bros., Inc.
2012 Hyperion Avenue
Los Angeles, California 90027

Gentlemen:

This is to acknowledge your letter of September 20 informing us that Willamette-Western Constructors, a joint venture, owes you $133,912.78 plus interest for work, labor, services and materials.

From the description included in your letter, this appears to be in reference to Willamette River Constructors, Contracts Nos. 7310, 7311 and 7312, for work on the East Fremont Interchange, Units A, B, and C, Section of the Stadium Freeway in Multnomah County.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bond on these contracts. We will advise them of the receipt of your claim and we will also forward it to the Secretary of State for filing.

Please advise this office when your claim has been satisfied.

Very truly yours,

ORIGINAL SIGNED
C. W. HEAD

C. W. Head, Manager
ADMINISTRATIVE SERVICES

cc Willamette River Constructors
The Travelers Indemnity Company
General Insurance Company of America
Hon. Clay Myers - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

KLAAS BROS. INC.
PAINTING CONTRACTORS

2012 HYPERION AVENUE
LOS ANGELES, CALIFORNIA 90027
661-1158

September 20, 1973

Oregon State Highway Commission
Salem, Oregon

Donald M. Drake Company, an Oregon Corporation, and
Willamette-Western Corporation, an Oregon Corporation,
in a Joint Venture known as Willamette-Western Constructors
1740 North West Flanders
Portland, Oregon 97209

General Insurance Company of America
Safeco Plaza
Seattle, Washington 98185
Attention: Surety Claims Manager
D. H. Purcell

The Travelers Indemnity Company
1 Tower Square
Hartford, Connecticut 06115

Re: State Highway Contracts Nos. 7310, 7311 and 7312
Unpaid Claims of Klaas Bros., Inc. as Painting Contractor

Gentlemen:

Notice is hereby given to you, and each of you, that the undersigned, Klaas Bros., Inc., claims for compensation for work, labor, materials, and services performed, furnished and supplied by it in performing the subcontract issued to it for painting and coating work under each of the above-noted prime contracts between the State Highway Commission and Donald M. Drake Company and Willamette-Western Corporation, a Joint Venture known as Willamette River Constructors and which joint venture issued the subcontract to the undersigned.

There is now due, owing and unpaid to the undersigned the sum of $133,912.78, together with accrued interest thereon. That sum is for, among other things, retention funds, unpaid extra work performed for the joint venture at its request, wage escalation, overtime compensation, mobilization compensation, subsistence expense, supervision expense, price differentials on materials, equipment costs, zinc repairs, force-account work, damages to cars due to concrete work, and

concrete painting repairs. All the foregoing is for work, labor, services and materials performed, furnished and supplied at the request of Donald M. Drake Company, an Oregon corporation, and Willamette-Western Corporation, an Oregon corporation, in Joint Venture under the firm of Willamette River Constructors, for the performance of and used in that Joint Venture's work on the prime contracts mentioned above for construction of the East Fremont Bridge Interchange and related improvements at Portland, Oregon.

Klaas Bros., Inc., demands immediate payment of that sum of $133,912.78 from each and all of you.

Very truly yours,

KLAAS BROS., INC.

By _____
Frank A. Klaas, President

STATE OF CALIFORNIA
COUNTY OF LOS ANGELES

I, Frank A. Klaas, hereby verify that all of the matters stated in the above letter are true.

_____
Frank A. Klaas

Subscribed and sworn to this 20th day of September, 1973, before me a notary public in and for said State and County.

_____
Arnold M. Schwartz

OFFICIAL SEAL
ARNOLD M. SCHWARTZ
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
LOS ANGELES COUNTY
My Commission Expires July 30, 1975

cc: The Travelers Indemnity Company
707 S.W. Washington Street
Portland, Oregon 97205

The Travelers Indemnity Company
3600 Wilshire Boulevard
Los Angeles, California

General Insurance Co. of America
1500 S.W. First Avenue
Portland, Oregon 97201

General Insurance Co. of Amer.
5455 Wilshire Boulevard
Suite 1806
Los Angeles, California 90036

RECEIVED
SEP 26 1973
HIGHWAY
ADMINISTRATIVE SERVICES

7311

FORM S-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE September 13, 1973

TO Memo to the File

FROM Edward L. Hardt
Construction Field Engineer (Bridge)

SUBJECT East and West Fremont Interchanges

RECEIVED
STATE HWY ENGR
SEP 17 73
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

On September 11 a meeting was held in the small conference room from 8:30 a.m. to 11:30 a.m. to discuss the inorganic zinc paint failure on the Fremont approaches. Listed below are those who attended.

J. F. Koehler, Exxon Chemicals, Florham Park, New Jersey
J. Owen, Exxon Chemicals, Los Gatos, California
*Jack L. Sollis, Asst. Attorney General, Salem
*Jack Clough, Asst. Attorney General, Salem
*A. E. Johnson, Deputy Highway Engr., Salem
*H. S. Coulter, Asst. Hwy. Engr., Salem
Ed Hardt, Construction Field Engr., Salem
*John Howard, Resident Engr., Portland
*Dean Mandrell, Materials, Salem
*Walter J. Hart, Bridge Engineer, Salem
*R. E. Shotwell, Resident Engr., Portland
Charles Lobaugh, Asst. Res. Engr., Portland
C. T. Christianson, Area Engr., FHWA, Salem
R. W. Pillsbury, FHWA, Salem
*H. A. Schell, FHWA, Salem

* Received a copy of this memo

The purpose of the meeting was for Exxon Paint Co.'s representatives, principally Frank Koehler, to discuss with us their findings and feelings for the cause of the primer failure on the Fremont approaches. I had met earlier with Mr. Koehler and at that time he had said that Exxon was going to duplicate in their laboratory Portland's environment and perform tests to determine what the effect of this environment would be on Rust-Ban 193 paint.

Mr. Koehler opened the discussion by telling the group that his laboratory did not make the above-described test because they felt that the pollution levels which I had described to them earlier out of Canron's report to us were so

low that there would be no purpose in duplicating these for a short-term lab test. He emphasized the point that he could not see how the Portland environment could in any way create the problem which we have had.

He passed around color photographs of ship interiors where their paint had been used successfully for a number of years and he mentioned that they had excellent results with the Alaska pipeline which had been painted with Rust-Ban 193. This is contrary to what we had been told by Canron and when queried about this, Mr. Keohler hung fast to his statement that there was nothing wrong with Exxon's paint on the Alaska pipeline. Attached to this memo is a page which Mr. Koehler passed around showing "major applications of Rust-Ban 193".

We talked considerably about the effect of acid cure and Mr. Koehler said that if the paint film had lost its gloss before the acid cure was applied, it was not likely that an excess of acid would cause a future deterioration of the paint film. This is contrary to what Saroyan had reported, that is, that excessive acid cure would cause a rapid primer breakdown.

Mr. Koehler listed three reasons which in his opinion could cause the kind of failure that we had experienced. 1) The anchor profile protrudes through the film (low film thickness). 2) The paint is contaminated with either shot residue which has remained on the steel after blasting or air-carried steel dust which has settled on the wet film. 3) The application of a dry film of paint creating a dry, dusty, porous surface.

I asked Mr. Koehler if he felt there was any merit in the contractor's claim that the rust stain deposited on the primer may have caused a breakdown of the primer itself. He said that he did not believe that this could have contributed to the problem. I also asked about the contractor's contention that if he had been allowed to apply a seal coat over the primer the problem would have been eliminated or at least lessened. Mr. Koehler said that if the primer had been applied and cured properly there would be no need to apply a seal—in our case, this would only have concealed a problem which would break out later. He agreed that my analogy that the seal coat was like a bandage, only concealing a problem, not curing it, was accurate.

The entire vein of Mr. Koehler's discussion with us was that the problem that we had experienced could not be attributed to the Portland environment so that more than likely the explanation lay in the procedures that were used in the painting plant. He said that his experience has been that in 99 out of 100 cases, problems with the inorganic zinc primer are traced back to application problems. He mentioned several times that this is a fine product if used properly but is very difficult to apply by people who are not used to working with it.

The meeting concluded with Mr. Koehler offering to give us any assistance that we might ask for.

ELH:dh

cc F. B. Klaboe

EXXON CHEMICAL COMPANY U.S.A.

P. O. Box 201, Florham Park, New Jersey 07932

EXXON CHEMICALS

June 21, 1973

SPECIALTIES DEPARTMENT
INDUSTRIAL COATINGS DIVISION
J. FRANKLIN KOEHLER
Manager-Marine and Export Sales

MAJOR APPLICATIONS OF RUST-BAN 193

A) 225 miles of the 48-inch diameter Alaska Pipeline was coated (exterior) with RUST-BAN 193 - and is giving satisfactory performance after over three years of service.

B) RUST-BAN 193 is extensively used in Japan as a plate primer for Japanese marine newconstruction projects. In addition the product has been widely used for protection of exterior surfaces of storage tanks throughout Southeast Asia and Australia.

C) RUST-BAN 193 is used for touch-up coating on all Esso VLCC construction in Europe...particularly in the cargo compartments where introduction of subsequent blasting operations would cause a severe contamination problem. In addition a number of large storage tanks in a French refinery were coated with this material about three years ago.

7311

FORM E-10

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE August 20, 1973

TO Mr. V. E. Skoog
Controller

Attn. Mr. R. J. Hacek

FROM R. J. Wright
Bridge Office Engineer

SUBJECT Consultant Agreement
Fremont Bridge Approaches
Contracts 7214, 7310, 7311, 7312 and 7623

The consulting firm of Howard, Needles, Tammen & Bergendoff, has completed the engineering services for the design of the East and West Fremont Interchange structures. Their final invoice is attached. It has been checked and is hereby approved for payment.

RJW:dh
Attachment

cc A. E. Johnson
E. S. Hunter
R. N. Bothman

NOTED
E. S. HUNTER

RECEIVED
AUG 21 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

7311

July 9, 1973

The Travelers Indemnity Company
Fidelity & Surety Department
700 Main Street
Hartford, Connecticut 06106

General Insurance Co. of America
Portland Service Office
1500 S. W. First
Portland, Oregon 97201

Gentlemen:

Contract No. 7311 awarded to Willamette River Constructors, Donald M. Drake Co. and Willamette-Western Corporation for work on the East Fremont Interchange (Unit 2) Section of the Stadium Freeway in Multnomah County was completed on May 25, 1973, and accepted by the Highway Commission on July 5, 1973.

Final payment will be released to the contractor as soon as payment processing can be completed, but not before July 14, 1973.

You have been previously notified of a claim filed against the contract.

Very truly yours,

G. W. Read, Secretary
OREGON STATE HIGHWAY COMMISSION

td
cc Willamette River Constructors,
Donald M. Drake Company and
Willamette-Western Corporation
1740 N. W. Flanders Street
Portland, Oregon 97209

bc C. T. Keasey
Walt Hart
V. E. Skoog
Attn: Dick Hook
L. W. Rulien

7311

July 9, 1973

The Travelers Indemnity Co.
Fidelity & Surety Department
700 Main Street
Hartford, Connecticut 06103

General Insurance Co. of America
Portland Service Office
1500 S. W. First Avenue
Portland, Oregon 97201

Gentlemen:

On July 9, 1973, we wrote to you concerning release of final payment on Contract No. 7311 awarded to Willamette River Constructors for work on the East Fremont Interchange (Unit 3) Section of the Stadium Freeway in Multnomah County.

Final payment on this contract is $9,253.91 and the total contract amount is $9,026,940.02 including $27,942.78 for work performed under force account.

Very truly yours,

J. H. Head, Secretary
OREGON STATE HIGHWAY COMMISSION

cc
cc Willamette River Constructors,
Donald M. Drake Co. and
Willamette-Western Corp.
1740 N. W. Flanders Street
Portland, Oregon 97209

bc C. T. Keasey
Walt Hart
V. E. Skoog
Attn: Dick Enoch
L. W. Rulien

7311

July 6, 1973

Drake-Willamette, Joint Venturers
1740 NW Flanders
Portland, OR 97209

Gentlemen:

This will acknowledge receipt of your impact claim for the East Fremont Interchange, Contract Nos. 7310, 7311, and 7312, which was received on June 7, 1973.

The claim is presently being reviewed. We expect our preliminary review will be completed in about a month, and we will advise you of our findings.

Very truly yours,

F. B. Klaboe
State Highway Engineer

bc A. E. Johnson
H. S. Coulter
Walter J. Hart
C. T. Keasey
Jack Sollis
R. N. Bothman
Robert Shotwell

ELH:fw ms

7311

5

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE July 5, 1973

TO Oregon State Highway Commission

FROM F. B. Klaboe
State Highway Engineer

SUBJECT Highway Project Acceptance

Contract No. 7311, Work Completed May 25, 1973

Project East Fremont Interchange, Unit "B"

Highway Stadium Freeway, County Multnomah

Type of Work Grading, Paving, Structure & Traffic Control Dev.

Contractor Willamette River Contractors

Recommended Acceptance Date July 5, 1973

The contractor has completed all work according to specifications and I recommend your acceptance of the project. I will assume this matter has your approval, unless advised to the contrary.

This item will be on the agenda at the Commission meeting on July 10, 1973 for your formal concurrence.

VG:dgk

cc: C. W. Head
A. E. Johnson
H. S. Coulter
L. H. Young
C. T. Keasey
W. J. Hart

7311

June 28, 1973

TO Glen L. Green, Division Engineer
Federal Highway Administration

FROM
H. S. Coulter
Assistant State Highway Engineer

SUBJECT East Fremont Interchange
Contract Nos. 7310, 7311 and 7312

Latex paint applied to the concrete surfaces of the East Fremont Interchange has shown a tendency to peel. This was first noticed after the severe freeze in December 1972.

An investigation has revealed that the principal reason for the paint failure was the use of polyvinyl acetate paint rather than acrylic emulsion paint. Project specifications allow the use of either paint by the contractor. The polyvinyl acetate paint does not adhere as well to smooth concrete as acrylic emulsion paint and it has inferior elastic qualities.

Also, a film of cement dust was found under the peeled paint, which indicated the surface may have been inadequately wet down prior to application of the paint. For this reason, we have required the contractor to repaint the peeled areas at his expense. It is anticipated that the contractor will file a claim for the cost of repainting because our specifications allowed the use of either paint. This is a valid point and we may have trouble resisting a claim. With the repainting done, the contractor has complied with the specifications and we have accepted the project.

Through experience, local paint suppliers have found that acrylic paint is superior to polyvinyl acetate paint. This may be the reason similar problems have not occurred before with locally supplied paint. The paint supplier for this project was Enjay Chemical Corporation of Houston, Texas, and did not have the benefit of the local knowledge.

Polyvinyl acetate paint has since been removed from our specifications. This project was let under the 1964 edition of the Standard Specifications, and the specification for latex paint consisted of three mimeographed pages obtained from the Department of Finance and Administration.

It is expected that the painting as repaired and accepted will remain on the concrete surface. However, there is the possibility of large-scale failure of the latex paint in the future. If this occurs, we will program a contract for repainting and will request federal participation at that time. It is hoped this procedure meets with your approval.

ELH:fw/HSC:ia

bc F. B. Klaboe
A. E. Johnson
C. T. Keasey
W. J. Hart
R. N. Bothman
Robert Shotwell

7311

June 25, 1973

EAST FREMONT INTERCHANGE
CONTRACTS 7310, 7311, 7312

DISCUSSION OF CONTRACTOR'S "IMPACT CLAIM"

INTRODUCTION

The East Fremont contractor, Drake-Willamette, submitted to the OSHD on June 6, 1973, an "Impact Claim" amounting to $2,289,019.65. This claim has been given a preliminary review by the Metro Office, Resident Engineer Robert Shotwell and Ed Hardt. Following is an evaluation of this review.

DISCUSSION

The contractor has identified six "stumbling blocks" to normal construction progress that affected the East Fremont work. These are:

1. Structural steel delivery
2. Structural steel erection
3. Viny paint bubbling
4. Zinc primer deterioration
5. Ring girder revisions
6. Expansion joint revisions

He has assigned responsibility for these factors as follows: Items 1 and 2, contractor; Items 3, 4, 5 and 6, OSHD. He then goes on to identify portions of the work which were affected, both in magnitude and duration by these factors (See Exhibits A, B, C and D). This approach of calculating relative impacts of delay problems by multiplying the number of factors times the months of delay is dropped at this point and was apparently developed only to set the stage for what follows.

The contractor next calculates dollar amounts of his claim. This is broken into three parts: (1) Loss of Productivity; (2) General Condition Expense; and (3) Subcontractor's Claims.

Under Loss of Productivity, the contractor shows, by means of graphs, his "planned labor performance" and his "actual labor performance". The difference between these two then is the "loss of productivity". Presumably, the planned labor performance factors came off of his bidding calculations and the actual labor performance factors came off his job cost records. The loss in productivity in units of work per man hour divided into the total units of work then yields the total loss of productivity in man hours. This multiplied by the labor cost gives the total cost of the loss of productivity. By referring to graphs 1 - 10 and Table 1, the mechanics of this calculation can be followed. The total of all these costs is $704,089.97.

The next item, "General Condition Expense", is shown in Table II. The contractor appears to be saying that since the job was delayed about one year (original

completion date October 20, 1971, final completion date late fall 1972) that all third year fixed expenses are claim items. There is no breakdown of these costs other than Table II so it is difficult to completely understand them. In general, they appear to be costs attributable to holding the project over into the third year. Included in Table II is an item of $173,283.69 for zinc primer repairs. This is the cost of repairing rust primer paid to the painting subcontractor.

The subcontractor's claims are presented in Table III. Canron is in for $233,971.90. This is composed of the cost of their investigation, interest on retainage ($98,598.00) and devaluation of retainage. Gilmore Steel Company, reinforcing bar subcontractors, are in for $156,020 based on delay and rescheduling of work costs. Their cost is calculated similarly to Drake-Willamette's using the "planned labor performance"approach. Klass Bros., painting subcontractor, is in for $93,316.86. Most of this is "third year delay costs".

ANALYSIS

The contractor has identified six "stumbling blocks"to normal construction progress. He has discarded the first two, which are his responsibility, as having no negative impact on the job progress. He has assumed that the other four, which he assigns to the OSHD, namely (1) vinyl paint bubbling, (2) primer deterioration, (3) ring girder revisions, and (4) expansion joint revisions, delayed the project into a third construction year. He contends this delay caused labor inefficiencies as well as extension of fixed costs.

The calculation of a claim by comparing the actual cost of the work with the anticipated cost prepared at the time of bid does not seem to be a valid basis. The proper approach would be to determine the difference in cost between the work as actually done and the cost of the work had not the "stumbling blocks"been present. For this reason, it is believed that the contractor has not presented this portion of the claim in an acceptable manner.

The second part of the claim is essentially overhead and fixed costs resulting from job delays. The OSHD has admitted responsibility for delays due to ring girder and expansion joint revisions by granting 210 workdays to the contractor based on these changes. Price Agreements and work orders totaling about $153,000 have been executed to compensate the contractor for the cost of these changes, but in his price quotes he reserved the right to claim "consequential costs"for the changes. A determination needs to be made as to whether these secondary costs are the basis of a valid claim.

The third part of the claim deals with subcontractors Canron, Gilmore and Klass. Canron's claim hinges on the State's analysis of the cause of the zinc primer breakdown. This analysis is not complete, but a preliminary evaluation indicates the problem originated with Canron's work which would negate their claim. Gilmore's

claim follows Drake-Willamette's in that it is based on comparison at what actually happened compared to what the bidding estimator thought would happen. The validity of this approach is in doubt. Klass' claim is essentially that of third year fixed costs paralleling Drake-Willamette's approach to that phase.

CONCLUSION

To approach a claim based on impact of changes by comparing actual performance to anticipated performance at time of bid preparation would not seem to be equitable. The impact of the change is paramount and that can only be ascertained by comparing the work as done with the work as would have been done without the change. For this reason, we have trouble accepting the contractor's approach to this portion of the claim.

As to secondary delay costs (overhead, fixed costs, etc.), a determination will have to be made as to their validity. The 1970 Standard Specifications are quite clear on this point (they are not allowed) but we have not found anything in the 1964 specs (applicable to this project) that applies.

Portland, Oregon 97227
June 27, 1973

RE: Impact Claim
East Fremont Interchange Units A,B,C
Contract No's. 7310, 7311, 7312

Memo to the File

This memo might serve to clarify the following paragraphs which refer to the vinyl bubbling problem;

Page 4 Paragraph A.1 (10 month delay)

Page 4 Paragraph B.1 (days of delay)

Page 5 Paragraph C.2 (shutdown)

The vinyl could have been applied intermittently, (as the spans were completed on Unit EW-1) starting about the 12th of September 1970. There was still a good chance of permissable painting weather at this time.

The paint subcontractor did not arrive on the project until Sept. 22 nd. He did not choose to work Sept 26 (Sat.), Sept. 27 (Sun.), Oct. 3 (Sat.), Oct 4 (Sun.), and Oct. 11 (Sun), although painting would have been allowed under the specifications.

On Nov. the 6th. we issued a shutdown order which was lifted Nov. 23 rd. During this period there was only one "paint day" (Nov. the 14th., a Saturday).

Upon resumption of work the painters still did not work Nov. 28 th (SAT.), a "paint day" which could have been a "make up day" for the 14th.

With the data available to us it appears the Shutdown order was not the cause of any delays.

Robert E. Shotwell
Resident Bridge Engineer

BY:

Charles Lohaugh

CAL:rsr

EXHIBITS A&B

MAJOR IMPACT ON FACTORS CONSIDERED YES OR NO	MAJOR PROBLEMS TO BE CONSIDERED: STRUCTURAL STEEL DELIVERY	STRUCTURAL STEEL ERECTION	VINYL PAINT BUBBLING	INORGANIC ZINC DETER. & REPAIR	RING GIRDER REVISIONS	EXPANSION JOINT NOISE REVISION	EXPANSION JOINT DEPTH REVISION
STRUCT. STEEL DELIVERY		NO	NO	YES	YES	NO	NO
STRUCT. STEEL ERECTION	NO		YES	YES	YES	YES	YES
VINYL PAINT APPLICATION	NO	NO		YES	YES	YES	YES
INORGANIC ZINC DETERIORATION & REPAIRS	NO	NO	YES		YES	YES	YES
RING GIRDER REVISIONS	NO	NO	NO	NO		NO	NO
EXPANSION JOINT NOISE REVISION	NO	NO	NO	NO	NO		YES
EXPANSION JOINT DECK DEPTH REVISION	NO	NO	NO	NO	NO	NO	NO
CONCRETE PIER FORMING & PLACEMENT	NO	NO	YES	NO	NO	NO	
CONCRETE DECK FORMING & PLACEMENT AT STEEL	NO	NO	YES	YES	YES	YES	YES
CONCRETE PARAPET FORMS & PLACEMENT AT STEEL	NO	NO	YES	YES	YES	YES	YES
DID IT CAUSE THE "WEDGE HOPPING EFFECT"	NO	NO	YES	YES	YES	NO	YES
DID IT SHIFT WORK PROCESS INTO BAD WEATHER SEASON	NO	NO	YES	YES	YES	YES	YES
DID IT AFFECT JOB CREW ORALE & PRODUCTIVITY	NO	NO	YES	YES	YES	YES	YES
TALLY: NO = 0 PTS. YES = 1 PT.	0	0	8	8	9	7	9
NO. OF MONTHS OF IMPACT UNTIL SOLVED = "X"	1	0	10	21.5	16.5	12	6
TOTAL IMPACT = TALLY TIMES "X"	0	0	80.0	172.0	148.5	84.0	54.0

EXHIBIT A: IMPACT STATEMENT

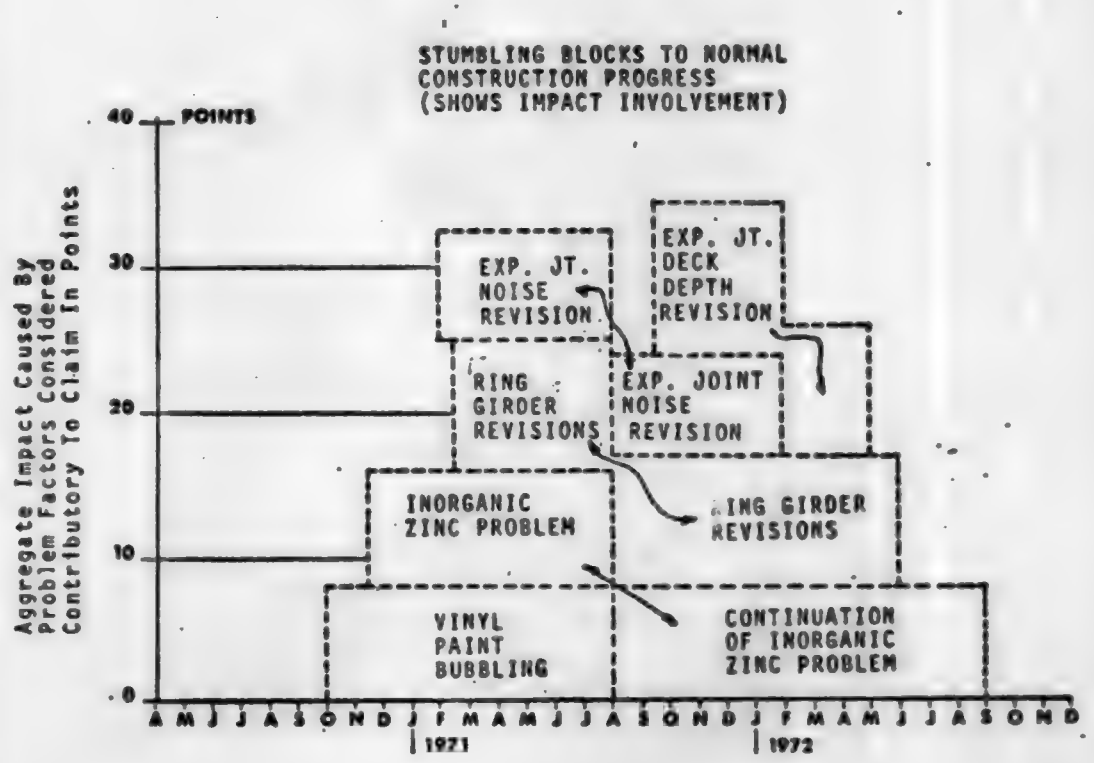

STUMBLING BLOCKS TO NORMAL CONSTRUCTION PROGRESS (SHOWS IMPACT INVOLVEMENT)
Aggregate Impact Caused By Problem Factors Considered Contributory To Claim In Points
40
30
20
10
0
POINTS
EXP. JT. NOISE REVISION
EXP. JT. DECK DEPTH REVISION
RING GIRDER REVISIONS
EXP. JOINT NOISE REVISION
INORGANIC ZINC PROBLEM
RING GIRDER REVISIONS
VINYL PAINT BUBBLING
CONTINUATION OF INORGANIC ZINC PROBLEM
A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972

EXHIBIT B: ANALYSIS OF IMPACT

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	A: IMPACT STATEMENT B: ANALYSIS OF IMPACT

EXHIBITS C & D

IMPACT FACTORS	VINYL PAINT BUBBLING	INORGANIC ZN DETER & REPAIR	RING GIRDER REVISION	EXP JOINT NOISE REVISION	EXP JOINT DECK DEPTH REVISION	MTHLY TOTAL
FACTOR IMPACT NUMBER	8	8	9	7	9	
MONTH OF INVOLVEMENT 1970 O	8					8
N	8	4				12
D	8	8				16
1971 J	8	8				16
F	8	8	4.5	7		27.5
M	8	8	9	7		32
A	8	8	9	7		32
M	8	8	9	7		32
J	8	8	9	7		32
J	8	8	9	7		32
A		8	9	7		24
S		8	9	7		24
O		8	9	7	9	33
N		8	9	7	9	33
D		8	9	7	9	33
1972 J		8	9	7	9	33
F		8	9		9	26
M		8	9		9	26
A		8	9			17
M		8	9			17
J		8	9			17
J		8				8
A		8				8

EXHIBIT C: FACTOR POINTS ANALYSIS

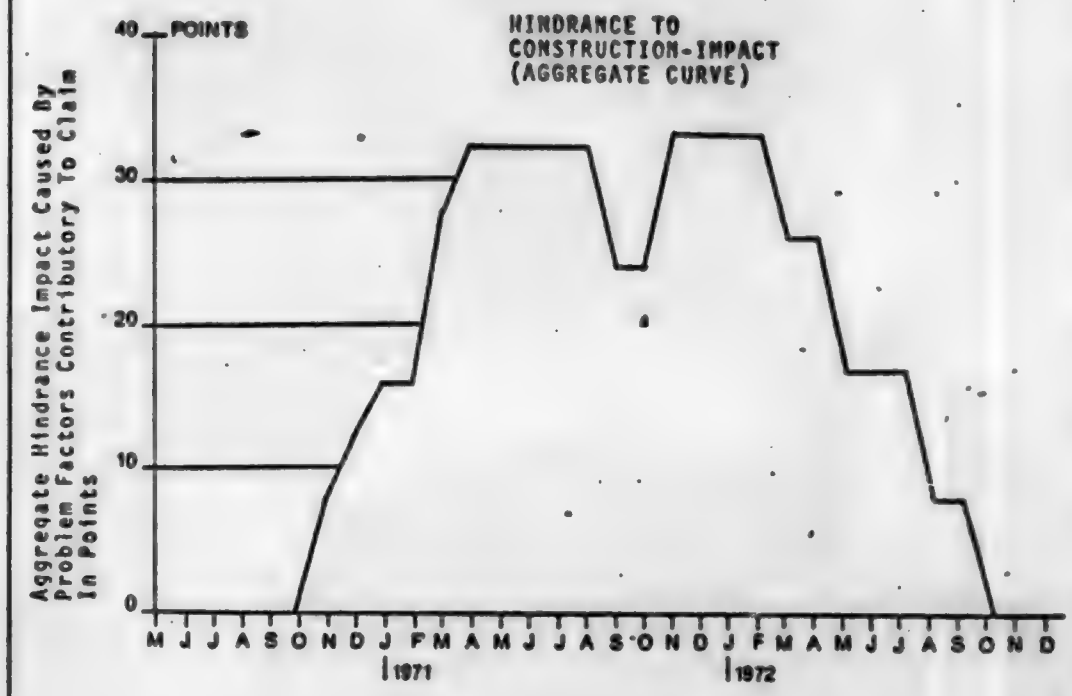

HINDRANCE TO CONSTRUCTION-IMPACT (AGGREGATE CURVE)
Aggregate Hindrance Impact Caused By Problem Factors Contributory To Claim In Points
40 POINTS
30
20
10
0
M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1971
1972

EXHIBIT D: ANALYSIS OF PROBLEM FACTORS IMPACT

DRAKE - WILLAMETTE, J.V.
Portland, Oregon

EAST FREMONT INTERCHANGE
Oregon State Highway Dept.
Contract Nos. 7310, 7311 and 7312

C: IMPACT FACTOR POINTS ANALYSIS
D: ANALYSIS OF PROBLEM FACTORS IMPACT

Summary - continued

TABLE NO. I:

Work Process Involved	Amount of Claim for this Process
1. Structural Steel Erection & Bolt-Up	$300,023.04
2. Deck Forming at Structural Steel	184,750.60
3. Deck Concrete Placement at Structural Steel	10,968.45
4. Deck-Wet (Broom) Finish	24,192.00
5. Parapet - Forming	30,394.92
6. Parapet - Concrete Placement	4,977.65
7. Parapet - Dry Finish	37,689.60
8. Deck - Water Cure	1,691.05
9. Clean Concrete off Structural Steel	105,191.40
10. Parapet - Water Cure	4,211.26
TOTAL - Loss of Productivity Claim	$704,089.97

It should be noted at this time that adjustments have been made in these values to reflect such items as the effect of labor strikes.

Exhibit "O" shows the unseasonably excessive precipitation encountered by the contractor from early September of 1971 until June, 1972, contributing much to the productivity loss in those activities planned to be in operation or completed in the summer months of 1971.

Fixed expenses beyond the original contract deadline. Next are presented those fixed expenses to which the contractor is entitled because the accumulative effect of the impacting factors forced completion of work into the third construction season.

Once the normal construction process suffered the full impact of problems encountered, it became virtually impossible to prevent carryover into the third construction season. This carryover was not the fault of the contractor. Because of the excessive amounts and duration of precipitation during the aforementioned period, excessive expenses were again incurred by the contractor. Restitution for these expenditures beyond the end of original contract time is also requested. These costs are set forth in Table II. (NOTE: Because the three contracts involved were treated as one by the contractor, October 31, 1971, has been set as the deadline, because each of the three contract deadlines, as extended, fell nearest this date. Contract completion deadline in this frame of reference is not to be confused with the revised completion date by the interim time extension granted on February 22, 1972.)

TABLE I - EAST FREMONT INTERCHANGE

LOSS OF PRODUCTIVITY DATA

GRAPH NO.	DESCRIPTION	LABOR RATES - DETERMINATED INCL. TAXES, FRINGES & 20% LABOR MARKUP: CREW MAKEUP	APPLIC. RATES PER HR.	LABOR COSTS PER HR.	TOTAL COMPOSITE RATE/HR.	TOTAL EST. QUANTITY INVOLVED	PLANNED PERFORM.	ACTUAL PERFORM.	LOSS OF PROD. IN MAN HRS.	TOTAL COSTS LOSS IN PROD.
1	Struc. Steel Erection	90% I.W. 10% Oper.	11.05 10.91	9.95 1.09	11.04	12448 T	0.232 T/Man Hr.	0.154 T/Man Hr.	27,176 Man Hr.	$300,023.04
2	Deck Form @ Str. Stl.	75% Carp. 25% Labor	9.92 8.81	7.44 2.20	9.64	488,884 Sq. Ft.	9.80 Sq.Ft./ Man Hr.	7.08 Sq.Ft./ Man Hr.	19,165 Man Hr.	184,750.60
3	Place Deck Conc.	All Labor	8.81	8.81	8.81	12,903 Cu. Yd.	2.54 Cu.Yd./ Man Hr.	2.04 Cu.Yd./ Man Hr.	1,245 Man Hr.	10,968.45
4	Deck Wet Finish	All Conc. Fin.	9.60	9.60	9.60	523,000 Sq. Ft.	122.9 Sq.Ft./ Man Hr.	77.2 Sq. Ft./ Man Hr.	2,520 Man Hr.	24,192.00
5	Form Parapet Rails	75% Carp. 25% Labor	9.92 8.81	7.44 2.20	9.64	118,372 Sq. Ft.	Rev. 13.93 Sq. Ft./ Man Hr.	10.16 Sq.Ft./ Man Hr.	3,153 Man Hr.	30,394.92
6	Place Parapet Conc.	All Labor	8.81	8.81	8.81	2,735 Cu.Yd.	1.56 Cu.Yd./ Man Hr.	1.18 Cu.Yd./ Man Hr.	565 Man Hr.	4,977.65
7	Parapet - Dry Finish	All Conc. Fin.	9.60	9.60	9.60	134,998 Sq. Ft.	32.1 Sq.Ft./ Man Hr.	16.6 Sq.Ft./ Man Hr.	3,926 Man Hr.	37,689.60
8	Deck Water Cure	All Labor (incl.Over-Time)	8.81 2.10	8.81 2.10	10.91	555,972 Sq. Ft.	Rev. 1798 Sq. Ft./ Man Hr.	1198 Sq.Ft./ Man Hr.	155 Man Hr.	1,691.05
9	Clean Struc. Steel	All Labor	8.81	8.81	8.81	469,410 Sq. Ft.	628 Sq.Ft./ Man Hr.	37 Sq.Ft./ Man Hr.	11,940 Man Hr.	105,191.40
10	Parapet Water Cure	All Labor (incl.Over-Time)	8.81 2.10	8.81 2.10	10.91	135,772 Sq. Ft.	845 Sq.Ft./ Man Hr.	248 Sq.Ft./ Man Hr.	386 Man Hr.	4,211.26
								TOTAL COSTS (Incl. Markups) =		$704,089.97

TABLE II:

General Condition Expense

1.	**Labor**	
	a. General Overhead (on site)	$208,323.60
	b. Equip. Oper. Costs – 3rd year	71,867.22
	c. Winter, Maint., Misc. Costs, 3rd year	18,634.14
	TOTAL LABOR	$298,824.96
2.	**Equipment**	
	a. General Conditions	$ 40,315.14
	b. Concrete Equipment	217,000.77
	c. Light Equipment	9,130.05
	d. Struc. Steel Equipment	59,940.51
	TOTAL EQUIPMENT . .	$326,206.47
3.	**Materials**	
	a. Materials	
	1. Street & Road Maint.	$ 5,182.82
	2. Taxes & Insurance	18,861.66
	3. Office Expenses (incl. Consultant to 3/15/73)	44,409.36
	4. Utilities Expenses	7,243.31
	5. Hot Water – 3rd winter Concrete	534.18
	6. Struc. Steel Misc. & Gen. Consum.	7,650.11
	7. Form Hdwe. & Lbr. – 3rd year Rent	30,772.60
	8. Equip. Oper. & Repairs to 3rd Pty. R.	22,538.95
	9. Zinc Primer Repairs (Pd. to Klaas)	173,283.69
	SUBTOTAL MATERIALS	$310,476.68
	b. Materials Escalation	6,362.35
	TOTAL MATERIALS . . .	$941,870.46

Subcontractor Claims:

In addition to the foregoing expenses, several of the subcontractors have presented claims through the contractor because of the impacted construction process. Table No. III sets forth these subcontractor claims.

Summary - continued

TABLE III:

Subcontractor	Amount of Claim
1. Canron, Ltd. (United States)	$233,971.90 (U.S.)
2. Gilmore Steel Contractors, Inc.	179,422.91
3. Klaas Bros., Inc.	110,210.86
TOTAL of Subcontractural Claims	$523,605.67

Copies of these claims are marked Exhibits "P", "Q" and "R", respectively.

Late Items:

The late items of fixed expenses to be included are as follows:

1. Consultant Fees, after 2/1/73	
a. Management Consultation	$ 5,400.00
b. Claims Preparation - Outside	4,600.00
2. Attorney Fees after 2/1/73 (Estimated)	100,000.00
3. Late materials billings	9,453.00
TOTAL Late Items	$119,453.55

Portions of the preceding data has involved a judgment factor, but conservatism in behalf of the State has been utilized throughout in making these allocations. Records are available for audit where they specifically apply. These records are presently housed in the offices of Donald M. Drake Company, 1740 N.W. Flanders St., Portland, Oregon 97209.

The entire amount of the claim is $2,289,019.65, and payment is requested on the basis of the foregoing presentations. Expeditious settlement of this claim is requested.

East Frame Ent.
Loss of Production Data
Sample Calculation

5. Forming Prompt Rails
Use Graph 5

Planned Performance:
From Graph 5, Revised Planned Performance
= 13.93 Sq. Ft/MH

Total Est. Quantity (Dg 18A) = 118,372 Sq. Ft.

Planned "Effort" = $\frac{118,372}{13.93}$ = 8,498 MH

Actual Performance:
From Graph 5, Actual Performance = 10.16 Sq. Ft/MH

Actual "Effort" = $\frac{118,372}{10.16}$ = 11,651 MH

Loss of Production = 11,651 − 8,498

= 3,153 MH

Cost of Loss of Production @ $ 9.64/MH

= 3,153 × 9.64

= $30,394.92

EAST FITMENT ENT.
LOSS OF PRODUCTIVITY DATA
SAMPLE CALCULATION

9. Clean Structural Steel
Use graph 9

Planned Performance:
From Graph 9, Planned Performance = 6.22 Sq. Ft./MH
Total est. Quantity (Pg 13A) = 469,410 Sq. Ft.
Planned "effort" = 469,410/6.22 = 747.5 MH

Actual Performance:
From Graph 9, Actual Performance = 37 Sq. Ft./MH
Actual "effort" = 469,410/37 = 12,687 M.H.

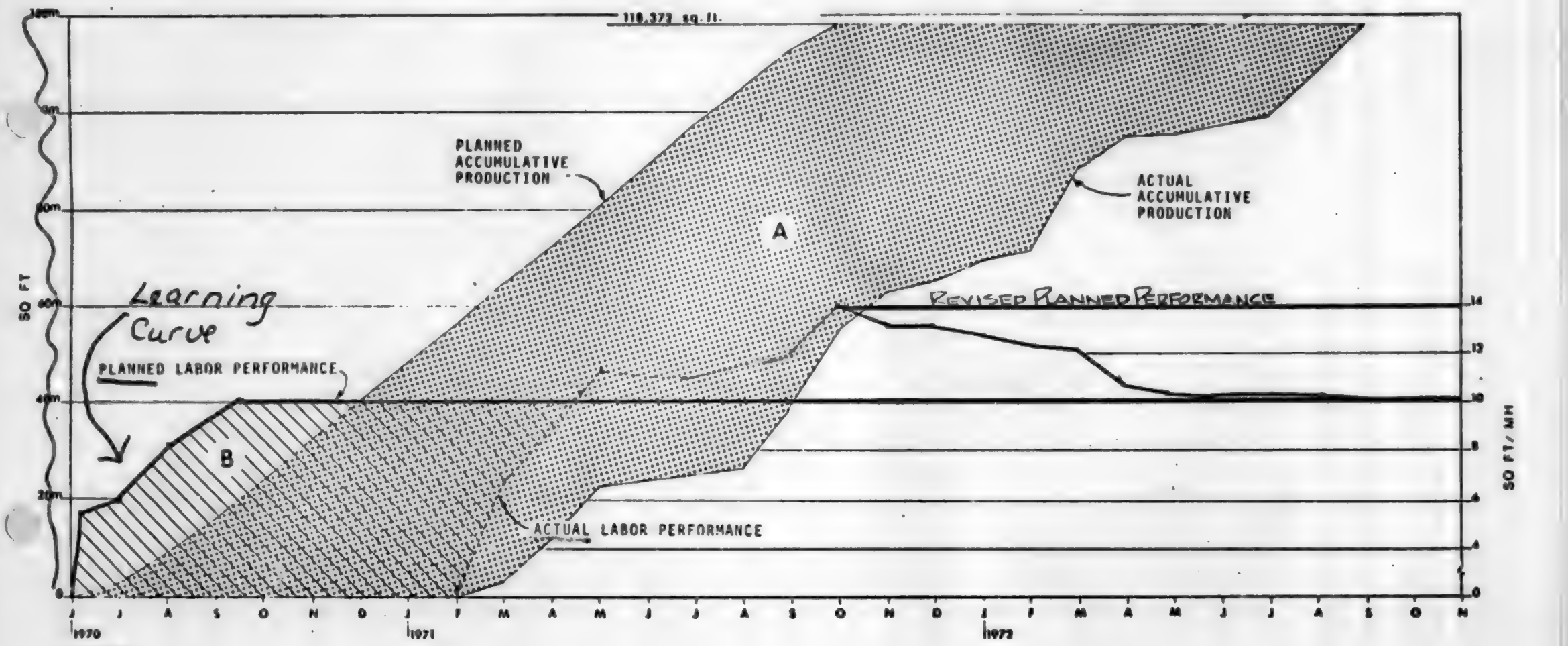
Loss of Production = 12,687 − 747.5
= 11,939.5 M.H.

Cost of Loss of Production @ $ 8.81 / MH

= 11,939.5 × 8.81

= $ 105,187.00

GRAPH 5


110,372 sq. ft.
PLANNED ACCUMULATIVE PRODUCTION
ACTUAL ACCUMULATIVE PRODUCTION
A
Learning Curve
REVISED PLANNED PERFORMANCE
PLANNED LABOR PERFORMANCE
B
ACTUAL LABOR PERFORMANCE
SQ FT
SQ FT/ MH
J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N
1970
1971
1972

LEGEND:

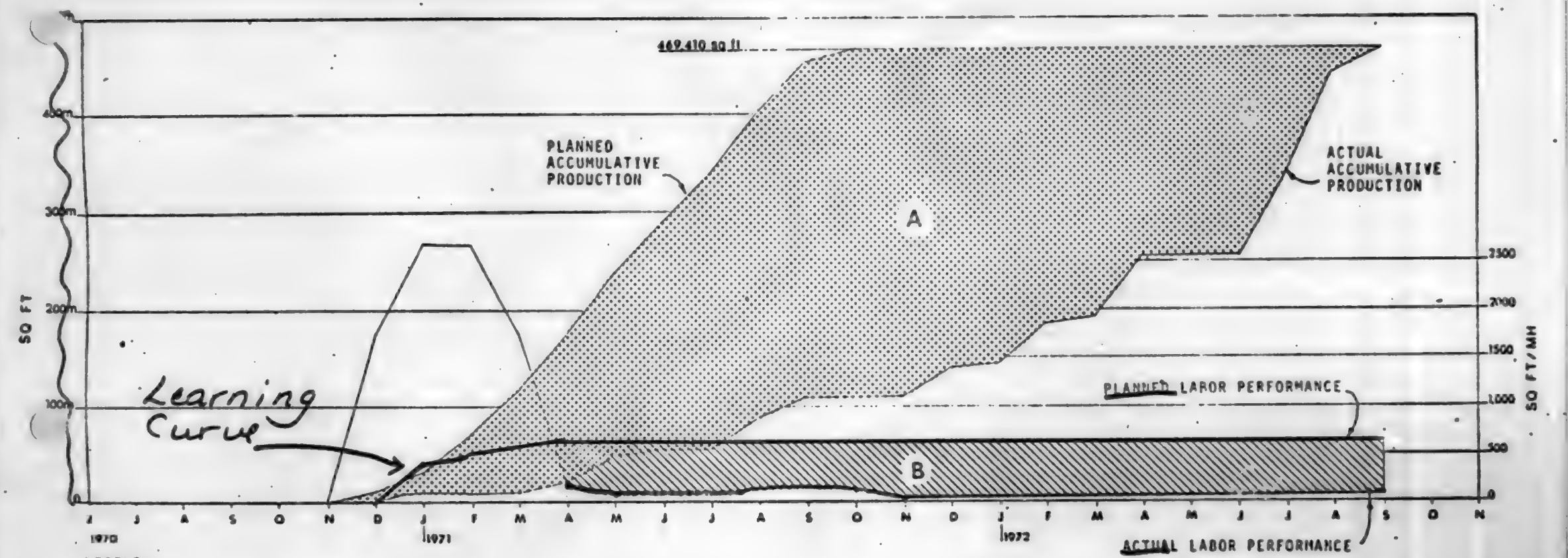
AREA A: ADJ. AREA = 1,011,386 SQ. FT. - MONTHS

AREA B: ADJ. AREA = 57.30 SQ. FT. - MONTHS PER M.H.

REVISED PLANNED AVERAGE PERFORMANCE = 13.93 SF/MH
ACTUAL AVERAGE PERFORMANCE = 10.16 SF/MH

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	FORMING PARAPET RAILS A. Accumulative Performance. B. Learning Experience Curves.

GRAPH 9



LEGEND:

AREA A: ADJ. AREA = 4,195,580 SQ. FT. - MONTHS

AREA B: ADJ. AREA = 15,207 SQ. FT. - MONTHS PER M.H.

PLANNED AVERAGE PERFORMANCE = 628 SF/MH
ACTUAL AVERAGE PERFORMANCE = 37 SF/MH

DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	CLEAN STRUCTURAL STEEL A. Accumulative Performance. B. Learning Experience Curves.

PRELIMINARY ANALYSIS OF ZINC BREAKDOWN PROBLEM

Contractor claims Portland environment causes breakdown.

Support: He says this must be the cause since everything else was controlled by our specifications and done properly, with P T L as witness.

State claims work was done improperly in Vancouver. Nothing wrong with Portland environment.

Support:

(1) Test panels put out by OSHD Lab.
(2) Performance of inorganic zinc on superstructure contract.
(3) Performance of Canron's test panels in Portland.
(4) Comments from CWAPA that pollutant levels in Portland are not high enough to cause trouble.
(5) Performance of portions of Canron's zinc in Portland.
(6) Statements from Enjay Paint Company which they hope to substantiate with lab tests.
(7) Statement by PTL's lead inspector that "it is our belief that the primer problems noted at the job site were caused by a general paint application procedure problem encountered at the fabricator's plant...."

7311

FORM E-30 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 20, 1973

SUBJECT: East Fremont Interchange
Contract Nos. 7310, 7311 and 7312

To: R. N. Bothman
Metropolitan Engineer
ATTN: A. C. Harwood

FROM:
Edward L. Hardt
Construction Field Operations Engineer

I have your letter of June 13 relating to latex paint problems on the East Fremont Interchange.

This question has been discussed with Walt Hart and Scott Coulter and as a result we concur with your recommendations as follows:

1. Reject the contractor's claim for cost of remedial work based on poor workmanship. I think you and I should discuss this point with Bob Shotwell to make sure we are in good shape to resist this claim.

2. Accept the contract work.

3. Alert the FHWA that there may be need in the future for remedial work which we would expect to be Federal participating.

RECEIVED
JUN 27 1973
Office of
Assistant State Highway Engineer

ELH:fw
cc: H. S. Coulter
Walt Hart

7311

OREGON STATE HIGHWAY DIVISION

NOTED
H. S. COLLIER

HIGHWAY BUILDING • SALEM, OREGON • 97310

June 6, 1973

TO Glen L. Green, Division Engineer
Federal Highway Administration

FROM L. H. Young, Office Engineer

Federal-aid Project
No. I-405-8(23)204

SUBJECT Request Contract Acceptance

Contract 7311, Work Completed May 28, 1973 (Revised)

Project East Fremont Interchange, Unit "B"

Highway Stadium Freeway

County Multnomah

We request that your office return a signed copy of this letter indicating acceptance or list conditions which would prevent your final acceptance of the contract work.

Acceptance Date _____

Conditions not acceptable: Final inspection was made on November 29, 1972. The physical construction is considered acceptable with the exception of permanent signing. Final acceptance is conditioned upon revision of this signing by State Forces as previously agreed.

Glen L. Green
Division Engineer

VG:bb

cc: F. B. Klaboe
L. H. Young
V. Gallagher

RECEIVED
JUN 20 1973
Office of
Assistant State Highway Engineer

RECEIVED
STATE HWY ENGR
JUN 19 '73
REFER TO
FOR
Info | Ass't | Sec'y | Dir | Eng | Att | File

7311

CONTRACTORS DEVELOPERS

DONALD M. DRAKE COMPANY
1740 N. W. FLANDERS STREET • PORTLAND, OREGON 97209
INCORPORATED JANUARY 2, 1973

TELEPHONE (503) 226-3991

June 6, 1973

Mr. A.E. Johnson,
Deputy State Highway Engineer
State Highway Building
Salem, Oregon 97310

Reference: OSHD Contract Nos. 7310, 7311 and 7312
East Fremont Interchange
Multnomah County, Oregon

Dear Mr. Johnson:

In accordance with our previous correspondence and your written instructions of February 6, 1973, we herewith submit four copies of our request for equitable adjustment to the contract. Subject adjustment is due to the interferences, delays and additional expense as described in the referred-to submittal.

We request your review of this information, and will meet with you at your request if you need further clarification. Otherwise, we will anticipate and appreciate prompt payment following your review.

Very truly yours,

DONALD M. DRAKE COMPANY

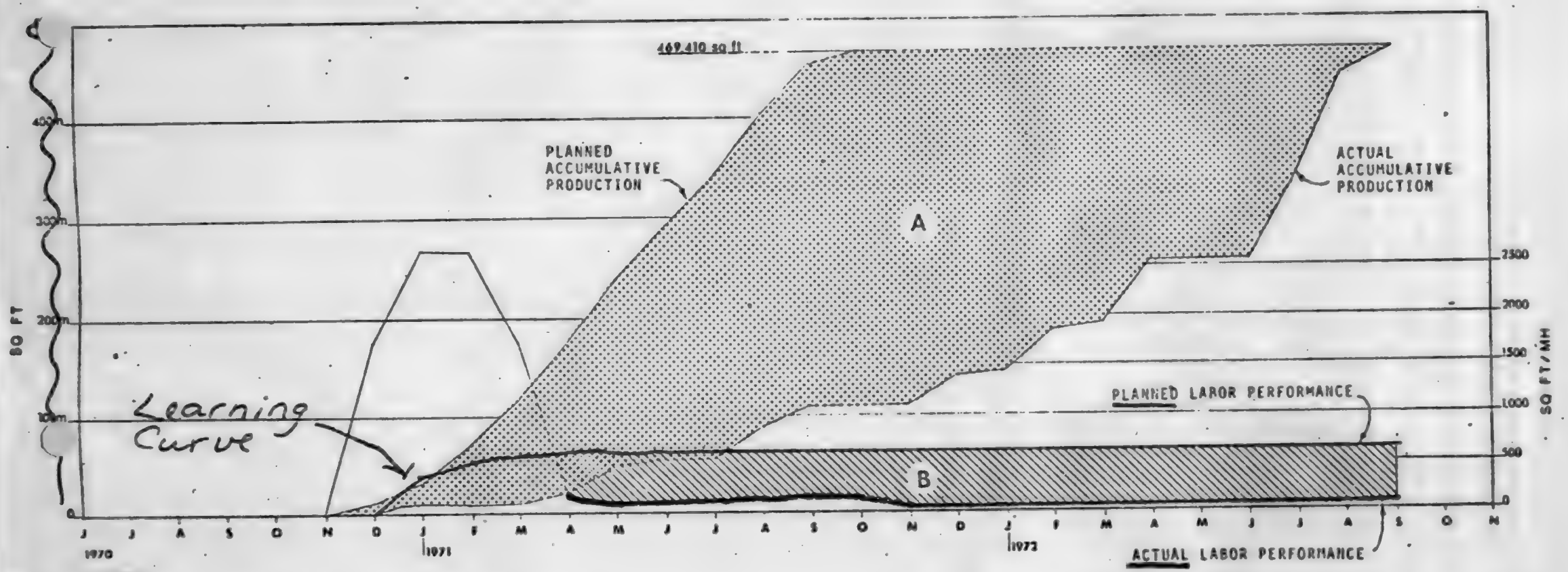
R. E. Grant

R. E. Grant, Vice President
Construction

REG:br
Encls.

HOTEL
R. E. JOHNSON

GRAPH
9



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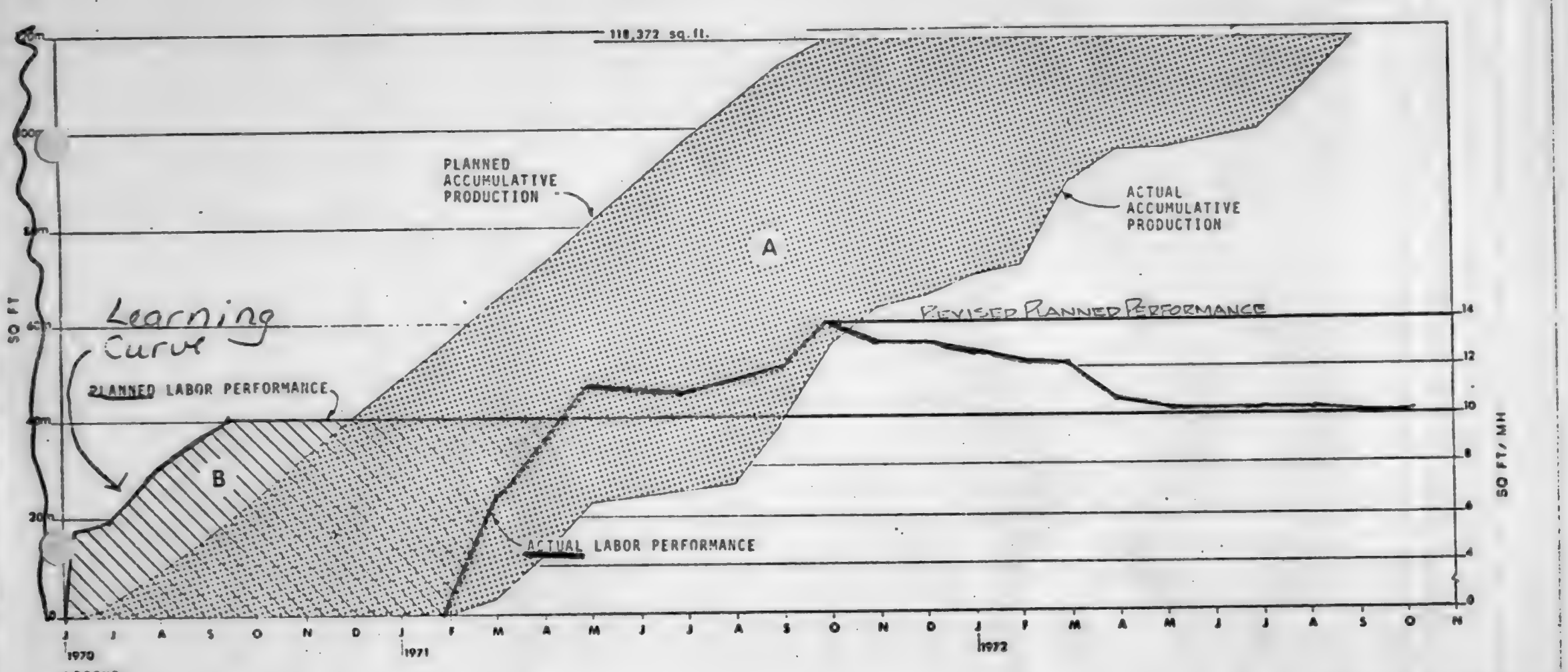
DRAKE - WILLAMETTE, J.V. Portland, Oregon	EAST FREMONT INTERCHANGE Oregon State Highway Dept. Contract Nos. 7310, 7311 and 7312	CLEAN STRUCTURAL STEEL A. Accumulative Performance. B. Learning Experience Curves.

GRAPH 5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Learning Curve
REVISED PLANNED PERFORMANCE
PLANNED LABOR PERFORMANCE
B
ACTUAL LABOR PERFORMANCE
SQ FT
SQ FT/ MH
J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N
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LEGEND:

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AREA B: ADJ. AREA = 57.30 SQ. FT. - MONTHS PER M.H.

REVISED PLANNED AVERAGE PERFORMANCE = 13.93 SF/MH
ACTUAL AVERAGE PERFORMANCE = 10.16 SF/MH

DRAKE - WILLAMETTE, J.V.
Portland, Oregon

EAST FREMONT INTERCHANGE
Oregon State Highway Dept.
Contract Nos. 7310, 7311 and 7312

FORMING PARAPET RAILS
A. Accumulative Performance.
B. Learning Experience Curves.

7311 H S Coulter

Form M-20

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE June 1, 1973

TO Memorandum to the File
ORIGINAL SIGNED
EDWARD L. HARDT

FROM Edward L. Hardt
Construction Field Engineer

7311

SUBJECT East and West Fremont Interchanges
Inorganic Zinc Paint

As part of my investigation of the inorganic zinc primer problem on the Fremont approaches, I talked with Mr. John Owen, who is Exxon Paint Company's West Coast representative. (Enjay Chemical Company has changed its name to Exxon Chemical Company.) As a result of this discussion, Mr. Owen said he and other Exxon people would like to meet with me to go over the problem.

Mr. Owen and Mr. Frank Koehler, Marine/Export Sales Manager for Exxon Chemical Company, visited me on May 31, 1973. Neither of these people had been connected with the Fremont project while the work was going on, so they had not actually seen the rusty steel.

We talked for about two hours in the Bridge office in Salem where I outlined the problem, and the fact that I was attempting to track down all possible reasons that would explain it.

After this we spent another two hours in Portland with John Howard and Bob Shotwell, who showed them photographs depicting the rust break-through. We discussed all of the aspects of the problem. I emphasized to Mr. Koehler and Mr. Owen that the contractor's (Canron) explanation of the primer problem was that the Portland environment was too harsh for the Rust-ban 191 and 193 and this caused the premature failure.

Mr. Koehler, the spokesman for the two (he is a graduate of MIT and speaks with considerable technical background and appears to be a world-wide trouble-shooter for Exxon), said that this explanation was not supported by the experience that Exxon has had with its inorganic zinc. He cited examples in Western Europe where the environment was heavily polluted due to industrialization and their product had been used uncoated for several years without any problem. He did mention one location where they had had a problem with the industrial atmosphere affecting one mil of inorganic zinc. The acid in the atmosphere condensed on the paint and caused trouble because there was no rainfall to wash it away. This "trouble" was evidenced by "lepers spots" on the surface which gradually enlarged with time. This would indicate that if the Portland environment had caused the problem with the inorganic zinc, it would have been manifested in a different fashion, that is, the zinc would have become mottled in appearance rather than causing a rusting of the steel itself.

RECEIVED
JUN 5 1973
Office of
Assistant State Highway Engineer

After looking at the photographs showing typical examples of rust bloom on girders, Mr. Koehler said that this looked to him like an application problem. He mentioned that his Company has found that with inorganic zinc paint unless there is "extra good" quality control and inspection in the paint shop, they are likely to have a problem with the application of this paint.

The Exxon people were asked to supply documentation regarding the successful past history of Rust-Ban 191 and particularly 193 used in environment similar to Portland's. I also requested that Mr. Koehler give me a written statement as to his opinion of the performance of Rust-Ban 193 in the Portland environment. He indicated he would respond to the best of his ability.

The Exxon people mentioned that they had lost a large contract in the Philipines because of the poor reputation that their product has as a result of the Fremont experience and they were anxious to get the question cleared up.

ELH/ag

cc A. E. Johnson
H. S. Coulter
R. Shotwell
J. Howard
J. Jenkins

7.311

REVISED 5-29-73

FORM [illegible] MAY 13 61

OREGON STATE HIGHWAY DEPARTMENT

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE DIVISIONS

SECTION: East Fremont Interchange Units A, B, & C	WEEK ENDING: May 26, 1973	
	SECTION PROJECT: A. 626-1017 B. 626-1018 C. 626-1022	
HIGHWAY: Stadium Freeway	COUNTY: Multnomah	
NAME OF JOB: East Fremont Interchange	KIND OF WORK: Structures, Traffic Control Devices, Pave, & Grade	
CONTRACTOR: Drake-Willamette, Joint Venturers	CONTRACT NUMBER S: A. 7310 B. 7311 C. 7312	FEDERAL AID PROJECT NUMBER: A. I-405-8(22)304 B. I-405-8(23)304 C. I-405-8(24)304
DATE OF CONTRACT: September 11, 1969	DATE WORK STARTED: September 26, 1969	

	Unit A	Unit B	Unit C
PROJECT AUTHORIZATION:	$13,928,737.75	$9,458,459.11	$2,218,093.60
EXCLUSIVE OF ENGINEERING:	$13,265,464.50	$9,008,056.29	$2,107,188.92
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING:	$13,459,737.17	$9,022,108.61	$2,064,094.98
ESTIMATED PERCENT: OVERRUN ~~OVERRUN~~	1.45%	OVERRUN ~~OVERRUN~~ 0.16%	~~OVERRUN~~ UNDERRUN 2.05%
ENGINEERING AUTHORIZATION	$663,273.25	$450,402.82	$110,904.60
ENGINEERING COST TO DATE	$627,000	$437,300	$92,500
PERCENT OF AUTHORIZATION	94.53%	97.09%	83.40%
SPECIFIED CALENDAR DAYS	A. 510 B. 965	965	A. 330 B. 965
CALENDAR DAYS USED	A. PA B. 949	900	A. PA B. 943
PERCENT OF TIME ELAPSED	A. PA B. 98.3	93.3	A. PA B. 97.7
PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST	100.00	100.00	100.00**
PERCENT OF CONTRACT COMPLETED BASED ON FINAL AUTHORIZATION	100.07	100.01	97.2
DATE PROJECT WAS COMPLETED:	April 27, 1973	May 25, 1973	Dec. 23, 1972

EQUIPMENT USED DURING THE WEEK:

** Excluding contingencies not used.

Snooper truck, truck, pickup, air compressor, spider climbers, and Misc. tools.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.	8958-1	8958-2	8958-3
PERCENT	100.00	100.00	100.00

	WEATHER	WORK DAYS CHARGED	HOURS DELAY
SUNDAY		Does Not	
MONDAY	Clear-warm	Apply	
TUESDAY	Light Showers A. M. Cloudy		
WEDNESDAY	Cloudy-showers		
THURSDAY	Cloudy-showers		
FRIDAY	Partly cloudy		
SATURDAY			

Total Average Force on Projects Unit A, B, C For the Week

Men: 2 Supervision: 1

RECEIVED
OREGON STATE HIGHWAY DEPT.
BRIDGE DIVISION
AM DEC 30 PM
7,8,9,10,11,12,1,2,3,4,5,6

RECEIVED
JUN 01 1973
BRIDGE DIVISION

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	REVISED 5-29-73
MONDAY	Do latex paint corrective work on Unit B.
TUESDAY	Do latex paint corrective work on Unit B.
WEDNESDAY	No Activity do to weather.
THURSDAY	No activity do to weather.
FRIDAY	Finish latex paint corrective work on Unit B.
SATURDAY	

REMARKS

STATUS: Units A,B,C are complete.

NEXT WEEK: This is the last Field Engineer's Weekly Report on this project.

SIGNED _____ LOCATION 1101 North Russell St. Portland, Oregon 97227

Robert E. Shotwell, Resident Bridge Engineer

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

7311

Mr. Richard A. Franzke
Attorney at Law
900 S.W. Fifth Avenue
Portland, Oregon 97204

-4-13 11

Dear Mr. Franzke:

East and West Fremont Interchange Project
(Primer Problems)
Your Client: Canron Limited

In reply to your letter of April 13 concerning the above problem, I have the following to offer.

Until such time as we have received all of the itemized claims of the prime contractor on this job and have transmitted those claims to the Federal Government for initial consideration, we are not in a position to make any reply as to substantive decisions. The Highway Division will be able to work on the information from the prime contractor as soon as it is received but until it is received and processed, there is no basis upon which a decision can be made.

We appreciate the cooperation you have extended us in the past and the patience you have observed, but we are necessarily limited by the request of the Federal Highway Administration and by the time it takes the prime contractor to provide us with an itemization of his claim concerning this matter.

Sincerely,

George M. Baldwin
Administrator of Highways

cc: F. B. Klaboe
A. E. Johnson
E. S. Hunter
Walter J. Hart
R. H. Bothman
Walter Barrie

JLS:am kw

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY B. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERS
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. HAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
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MILO E. ORMSETH
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ROBERT L. RIDGLEY
RICHARD A. FRANZKE
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JIM D. KORSHOJ
HENRY H. HEWITT
WALTER C. MINNICK
JERE M. WEBB
RONALD S. GROSSMANN
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
K. PATRICK NEILL
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JOY D. ABELE
DONALD J. BOYD
WILLIAM G. MIGELY
GREGORY J. HOWE
JOHN M. SCHWEITZER
WILLIAM F. MARTSON, JR.
MICHAEL M. MORGAN
RICHARD M. BOTTERI

April 13, 1973

Mr. George M. Baldwin,
Highway Administrator
Room 135
State Highway Building
Salem, Oregon 97310

Dear Mr. Baldwin:

Re: East and West Fremont Interchange Project
(Primer Problems)

We are counsel for Canron Limited, steel fabricating subcontractor on both the East and West Fremont approach projects. For the past 14 months we have been negotiating with the Highway Department, principally through the office of Leonard Lindas, in an effort to resolve the question of liability for problems experienced with the inorangic zinc primer that was applied to the steel members on these projects. With the various personnel changes you have experienced within the Highway Department in recent months and our feeling of utter frustration in arriving at a solution to this matter, we felt we should bring the existence of the problem to your attention at this time. We wish to make it clear, however, that in doing so we do not intend to inferentially critize anyone presently within the department; we understand, even though we cannot accept, the complexities of the highway administrative system and the effect of these recent personnel changes.

I will not attempt in this letter to go into great detail concerning the cause and effect of the paint problem. Suffice it to say that the specifications for these projects required use of what might be called a "exotic" new paint system, about which relatively little was known at the time of design. Canron Limited questioned the advisability of using this paint because several manufacturers expressed reluctance to have their products used, but nevertheless it was retained in the specifications. Subsequently, problems developed with the paint, primarily a loss of paint film thickness and rusting. Canron suggested

certain preventive and remedial measures at that time, but was not permitted to implement them. The Highway Department officially took the position at that time that the subcontractor alone was responsible for the problem and would have to repair the paint at its expense.

Over a period of several months Canron conducted extensive investigation into the cause of the paint failure, utilizing the services of outside consultants including one of the inventors of the inorangic paint system. This investigation revealed similar failures on other projects and lead to the conclusion that the specifications were inappropriate for this job. The results of our analysis of the problem were presented to Mr. Lindas about 14 months ago with the request the State reconsider the position it initially took, and if it concurred with the conclusions we had reached that it issue a statement retracting its former position and exonerating the subcontractor.

Mr. Lindas and I agreed to pursue this matter "informally" with the hope of avoiding litigation. We also agreed to limit our consideration in the first instance to the question of liability, avoiding for the time being determination of damages attributable to the paint problem. Everyone involved recognized that the answer to the question "who's at fault" did not turn upon the amount of damage.

After repair of the primer was completed, the State paid the prime contractors in full under their contracts. However, the State never retracted its early statements charging Canron with fault. Consequently the prime contractors continued to withhold payment from Canron of approximately $2,000,000 in retainage on the ground that the State, at least officially, had never retracted those statements.

In a further effort to finally resolve the question of responsibility, Mr. Lindas and I agreed upon a joint "arbitration" of the matter and for this purpose Mr. John Saroyan, one of the inventors of the subject paint system, was retained to review the case. He answered specific questions submitted to him and his conclusion was that the entire problem would have been avoided if the specification had been written properly. Notwithstanding this decision, the State Highway Department declined to retract its previous statement without the concurrance of the Federal Highway Administration. The whole case was submitted to the FHA in Salem

and eventually it was reviewed by the regional FHA office in Portland which concurred in Mr. Saroyan's conclusion. For reasons that are not entirely clear at this time, some hang-up developed within the FHA so that it now says it will not consent to the Highway Department giving us its decision until the dollar amount of the claims of the prime contractors is established.

It is our understanding the prime contractors are assembling their claims for presentation to the State and also that the Highway Department is assembling some information requested by the FHA. It is our hope and expectation that the Highway Department will work diligently on this problem finally to resolve it. As Mr. Lindas said, this matter has been under discussion for over a year and "good conscience" dictates that the State should not further delay acknowledging that it, and not the subcontractor, is responsible. And as he pointed out, such an acknowledgment would not commit the State to approve any specific monetary adjustment. The prime contractors would of course have to document their entitlement to any additional money.

We will continue to work cooperatively with your legal and engineering people in the hope that this matter can be resolved without litigation. If litigation is necessary it will be extremely expensive and demanding upon all parties. At this time we only ask that you, to the extent practicable, try to impress upon all concerned that this matter desires their prompt and complete attention.

We will appreciate anything you can do to expedite resolution of this matter and of course we would be happy to discuss it further at your convenience or to furnish any additional information you might desire.

Very truly yours,

Richard A. Franzke

cc: Walt Barrie, Chief Counsel, OSHD

RECEIVED
APR 19 1973
OFFICE OF
ADMINISTRATOR OF HIGHWAYS

February 6, 1973

Andersen-Hannan
Post Office Box 13367
Portland, OR 97213

Attention Mr. H. A. Andersen

Gentlemen:

This will acknowledge your letter of January 22 concerning various problems in connection with painting of the West Fremont Interchange, Contract No. 7214. We do not agree with your statement in the first paragraph..."that a consensus has been arrived at to the point where it is now recognized that there is no responsibility on our part or the part of our fabricator for the defects and deficiences requiring repair."

We understand that you are withholding payment of Canron's retainage on the basis of a purported statement by Mr. Edwards that the failure of the zinc primer was the responsibility of Canron. We have made an exhaustive investigation of the problem and now advise you that we are unable to determine at this time the responsibility of failure.

In your January 22 letter you are implying numerous claims in connection with the problem with the zinc primer as well as the vinyl coat, and until these items are presented in detail, it will be impossible to consider any claims. I would urge you to submit as soon as possible all of your claims in connection with your project.

Very truly yours,

F. B. Klaboe
State Highway Engineer

cc Henry Hannan
H. Scott Coulter
Walter J. Hart
R. N. Bothman
L. I. Lindas
V. E. Skoog
AEJ:ms

A. E. Johnson
John Howard

FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

731

5

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: May 4, 1973

In reply refer to: 10-35-DA

FROM : Mr. G. L. Green, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
State Force Order No. 19 (Unit A) & 5 (Unit B)
Total Estimated Amount of the Orders - $2,200.00
Federal Participation - $1,180.00

#1311

Reference is made to Mr. Young's letters of April 30, concerning the subject orders.

The use of State Forces to modify the roadway illumination is approved as being in the public interest under the provision of PPM 21-6.2 for the following reasons:

1. The contractor is no longer on the project. Observation and testing of the completed system revealed the need for uniformity adjustments. The amount of work is too small to warrant a contract.

2. The State has trained men and specialized equipment to perform the work economically and expeditiously.

Federal participation will be based on actual cost. A copy of the approved orders is returned herewith. This will confirm our February 2nd verbal authorization to proceed with the work.

Enclosure
State Force Orders No. 19 & 5

RECEIVED
STATE HWY ENGR
MAY 8 '73
REFER TO
FOR

NOTED
A. E.
Contr. -

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

...r A-165—6M.

STATE (G-1P

OREGON STATE HIGHWAY DEPARTMENT

Cont... upon modification of project ...reement if additional funds are ...ed

Order for State Force Work

...5-4-73

APPLYING TO CONTRACT PROJECTS F.A. HIGHWAY Order No. 5

Project Name East Fremont Inter. Unit B Date 4-11, 1973

Highway Stadium Fwy Contract No. 7311 F. A. Project No. I-405-8(23)

County Mult. Prefix 626-1018 Account No. 277-05 304

Description of Work To Be Done:

Modify roadway illumination

Location by Station Numbers:

Sta WS 319+00

Estimate of Quantities and Costs:

Labor	$ 300.00
Equipment	200.00
Material	100.00
	$ 600.00

Explanation: Roadway lighting was installed as per contract plan. A night inspection revealed necessary modifications to correct dark areas on the roadway. Work has not been started.

INSTRUCTIONS

Submit a separate order for each piece or kind of state force work to be undertaken. Use the account number applying to that work as indicated in the account numbers assigned to state force work on contract jobs.

Five copies of the order are to be submitted to Salem. After approval by the Assistant State Highway Engineer, one copy will be sent to the Division Engineer and one copy to the Resident Engineer.

Project authorization	$9,458,459.11
Present estimate of project cost, including $ 600.00 for work under this order	$9,476,961.79
Expected ~~under-run~~ over-run (amount)	$ 18,502.68
Expected ~~under-run~~ over-run (per cent)	0.195

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Division Engineer

Approval Recommended: [signature] Construction Engineer or Bridge Engineer

Approved: [signature] ~~Deputy State Highway Engineer or~~ Assistant State Highway Engineer

This order does not constitute authority for expenditures until approved by the Deputy or Assistant State Highway Engineer.

State Printing

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

7311 Salem, Oregon

DATE May 4, 1973

TO L. H. Young
Office Engineer Attention C G. Swenson

FROM Walter J. Hart
Bridge Engineer Walter J. Hart

SUBJECT East Fremont Intch. Units A and B
Contracts 7310 and 7311
Latex Paint

The latex paint specifications for concrete surfaces on the subject project allowed the use of either a polyvinyl acetate copolymer emulsion or a modified acrylic emulsion paint.

The contractor used the PVA alternate,and apparently due to the smooth surface and dryness of the concrete at the time of painting much of this paint has peeled.

Our laboratory feels that PVA is not as tolerant of these conditions as the acrylic and that use of the acrylic would produce better results. Because of this on all future projects the PVA alternate should be removed from the specifications.

RWE/ag

cc E. S. Hunter
D. H. Moehring
H. A. Schell

NOTED
E. S. HUNTER

RECEIVED
MAY 7 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

FORM E-90 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

7311

Salem, Oregon
March 23, 1973

SUBJECT: Report on Paint Exposure Test Fremont & W. Fremont & Astoria

#7311

To: Mr. A. E. Johnson
Deputy State Highway Engineer
O F F I C E

Purpose of Test -

In the early part of 1971, the inorganic zinc primer for the Fremont Bridge approaches began to show premature failure. This was exhibited by rusting through much faster than anticipated for the inorganic zinc system which the State had specified. The manufacturer of the primer, Enjay, the fabricator, and applicator all indicated that for the hostile atmosphere of Portland, rapid deterioration of the inorganic zinc was to be anticipated. A survey of the literature does not substantiate this contention. After much discussion, it became evident that there was likely to be some type of court action taken, by one side or the other, to recover funds. With this possibility in mind, the Asst. Highway Engineer, A. E. Johnson asked the Materials & Research Unit to do investigation of outdoor exposure on the zinc primers used on the Fremont approaches, namely Rust Ban 191, Rust Ban 193 with 6851 post cure, and Carbozinc 11. The first two products are from Enjay Chemical, the last is from Carboline.

The method of test was as follows: Using 16" x 16" steel panels, blasted to "white" metal on both sides, the laboratory air spray Devilbiss MBC gun with the fluid tip, air cap and spring, recommended by the primer manufacturer and the primer supplied by the manufacturer, the panels were coated both sides as follows:

3 each RB191 - 2 mils
3 mils

3 each RB193 - 1 mil - no cure
1 mil - recommended cure rate
1 mil - twice recommended cure rate

3 each RB193 - 3 mil - no cure
3 mil - recommended cure rate
3 mil - twice recommended cure rate

3 each Carbozinc 11 - 2 mils
3 each Carbozinc 11 - 3 mils

RECEIVED
STATE HWY ENGR
MAR 26 '73
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

NOTED
A. E. Johnson

Note: The mil thickness given is not an absolute thickness, but a general reference. In some cases, thickness is twice that of the reference.

After coating the panels and letting them cure 72 hours, thickness measurements were made at 5 points on each panel with a calibrated Elcometer, single contact film inspection gage, and the readings recorded. On November 23, 1971, one set of plates was taken to each of the following sites: Astoria Maintenance Yard, South Exposure; East Fremont, on the roof of the Resident Engineer's Building, East Exposure; and West Fremont, on the roof of the Resident Engineer's Building, South Exposure.

General Discussion -

Zinc is one of the most commonly used cathodic protection materials. For large structures, anodes, many times zinc anodes, are used to protect steel which is immersed in water or imbedded in soil, e.g. gas, oil or water lines, telephone cables, etc. Zinc is used for galvanizing small structures that are in splash zones, which do not have constant wetting or that are above water or ground line, or which are too small for protection of an anode, e.g. culvert pipe, above ground piping, gutters, downspouts, etc. In the last few years, zinc as metallized zinc; zinc dust-zinc oxide, inorganic and organic zinc coatings has been used as a primer coating to protect ship decks, cargo containers, off-shore drilling rigs, bridges, etc.

Zinc protects steel by being more reactive than the base metal. For example, zinc protects steel, but would not be satisfactory for the protection of aluminum, which is more reactive than zinc. The mechanism of the protection is basically very simple as long as the zinc is in intimate contact with the steel. In the case where zinc is applied over a good clean blasted surface, and intimate contact is attained, the moisture which generally would cause the steel to rust, reacts instead with the zinc to form salts. This process continues until the ready supply of zinc is depleted. Some of the zinc salts are extremely soluble, as in the case of the chlorides, iodides, nitrates, and sulfates. However, many of the zinc salts are insoluble or nearly so, as in the case of chromate, oxide, phosphates, sulfides and sulfites. Notable among the insolubles are the phosphates, which are the reactive components in the Enjay 6851 post cure solution.

If the zinc is not in intimate contact with the steel, as in the case of poor blasting, or excess vehicle holding the zinc from the steel surface, moisture causes immediate attack on the base metal. Organic zinc primers and zinc dust-zinc oxide primers generally have approximately 90% zinc loading to insure continuity from the outer surface of the primer to the surface of the steel, which allows the zinc to protect the steel. The high loading is required due to the organic vehicle which possibly would act as an insulator. The inorganics, on the other hand, generally contain 80-85% zinc in the dried film. Less zinc is required because the vehicle dries to a conductive inorganic material, insuring good contact.

The particular zinc systems under consideration at the time of testing were Rust Ban 191, a water-borne inorganic silicate, Rust Ban 193, similar to 191, but with a surfactant which promotes better wetting characteristics, thus allowing less concern with surface profile (the 193 was post-cured with R86851, a phosphoric acid-water material of pH less than 1.0), and Carbozinc 11, a solvent borne ethyl silicate primer.

Site Description -

The Astoria exposure is in the back of the Maintenance yard, generally facing the new Youngs' Bay Bridge. After the first 2 months, three of the plates were used as weights to hold down a plastic cover for some concrete chunks in the yard.

The East Fremont specimens have generally easterly exposure. This site has been very hostile in that lime water from the approach, rocks and anything else dropped from the approach span falls on this area.

The West Fremont exposure is generally southerly. Rocks from the West approach span were dropping at first, but in general, the exposure is no more serious than the general Portland waterside exposure.

AVERAGE COATING THICKNESS MEASUREMENTS, IN MILS, ASTORIA SITE

	Date of Reading								
System	Nov. 24, 1971	Dec. 22, 1971	March 24, 1972	April 25, 1972	May 26, 1972	June 28, 1972	Aug. 22, 1972	Jan. 24, 1973	Net Change
RB									
191-2	3.9	3.8	3.5	3.4	3.5	3.5	2.9	2.7	-1.2
-3	4.6	4.8	4.3	4.1	3.8	3.9	3.7	3.5	-1.1
RB									
193-1-0	2.0	1.8	1.8	1.8	1.7	1.9	1.9	1.8	-0.2
1-x	1.9	1.8	1.8	1.8	1.8	1.8	1.7	1.6	-0.3
1-2x	2.1	2.2	2.0	2.0	2.1	2.1	2.2	2.2	+0.1
2-0	2.8	2.3	2.8	2.7	2.7	2.6	2.6	2.5	-0.3
2-x	2.6	2.8	2.5	2.5	2.5	2.5	2.3	2.4	-0.2
2-2x	2.6	2.6	2.5	2.3	2.2	2.3	2.3	2.6	-
3-0	2.9	2.7	3.0	2.9	2.8	2.8	2.8	2.4	-0.5
3-x	3.1	2.9	2.9	3.0	3.1	3.0	2.8	2.7	-0.4
3-2x	3.2	2.8	2.8	3.3	3.2	3.2	2.5	2.5	-0.7
GZ11-2	2.6	2.4	2.4	2.4	2.4	2.5	2.4	2.3	-0.3
-3	3.5	3.5	3.5	3.5	3.6	3.5	3.6	3.4	-0.1

AVERAGE COATING THICKNESS MEASUREMENTS, IN MILS, EAST FREMONT SITE

System	Nov. 23, 1971	Dec. 22, 1971	March 27, 1972	June 28, 1972	Nov. 10, 1972	Jan. 23, 1973	Net Change
	Date of Reading						
RB							
191-2	3.2	3.2	3.3	3.1	3.0	3.0	-0.2
191-3	4.8	4.5	4.1	4.2	3.6	3.5	-1.3
RB							
193-1-0	1.8	1.8	1.8	1.7	1.6	1.6	-0.2
1-x	1.5	1.5	1.6	1.5	1.4	1.3	-0.2
1-2x	1.8	1.6	1.6	1.6	1.6	1.5	-0.3
2-0	2.1	2.0	2.1	2.1	2.0	1.7	-0.4
2-x	2.2	2.1	2.1	2.1	1.8	1.8	-0.4
2-2x	2.4	2.5	2.3	2.2	1.6	1.6	-0.8
3-0	2.9	2.8	2.7	2.5	2.3	2.2	-0.7
3-x	2.9	2.8	2.9	2.9	2.9	2.6	-0.3
3-2x	2.8	2.6	2.7	2.7	2.3	2.2	-0.6
GZ11-2	4.2	4.4	4.3	4.0	3.3	3.2	-1.0
-3	6.0	6.0	6.1	5.8	5.0	4.9	-1.1

AVERAGE COATING THICKNESS MEASUREMENTS, IN MILS, WEST FREMONT SITE

System	Nov. 23, 1971	Dec. 22, 1971	March 27, 1972	May 26, 1972	June 28, 1972	Aug. 21, 1972	Nov. 10, 1972	Jan. 23, 1973	Net Change
	Date of Reading								
RB									
191-2	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.3	-0.1
-3	3.4	3.5	3.4	3.3	3.5	3.4	3.3	3.2	-0.2
RB									
193-1-0	1.9	2.0	2.0	1.9	2.0	1.9	1.8	1.8	-0.1
1-x	1.8	1.8	1.8	1.7	1.7	1.6	1.5	1.5	-0.3
1-2x	2.0	1.9	1.9	1.6	1.6	1.6	1.5	1.5	-0.5
2-0	2.7	2.5	2.8	2.3	2.4	2.3	2.2	2.2	-0.5
2-x	2.7	2.6	2.8	2.6	2.7	2.6	2.6	2.5	-0.2
2-2x	2.3	2.5	2.4	2.3	2.2	2.1	1.9	2.0	-0.3
3-0	3.1	2.9	2.7	2.8	2.7	2.4	2.4	2.4	-0.7
3-x	3.4	3.3	3.1	2.9	2.7	2.6	2.7	2.6	-0.8
3-2x	3.8	3.7	3.7	3.1	2.5	2.9	2.9	2.2	-1.6
GZ11-2	3.9	4.0	3.7	3.5	3.4	3.4	3.3	3.2	-0.7
-3	4.5	4.4	4.3	4.3	3.9	4.1	4.2	4.1	-0.4

Discussion of Data -

The readings were all taken by the writer. The value given are all averages of 5 readings taken one at each corner and one in the center of the plate. Some variation is noted, due to the slight variation of the point of reading. The general sites were kept constant. These samples exhibit slight rust at or near the edges where handling during priming caused reduced millage.

These data indicate zinc is a sacrificial metal, slowly giving up thickness to protect the steel. This was known all along. The losses are not greater than expected, and are inconclusive, which is the best conclusion we could have in this case. Further investigation should be given to the surface contaminants that have attacked the zinc. This would require terminating exposure, returning them to the lab and performing further lab tests on the panels, which I would recommend.

In conclusion, these data do not lend credence to the assertion that rapid deterioration is inherent with this type of primer in Portland exposures.

JOHN C. JENKINS
Engineer of Materials & Research

By H. Dean Mandrell

H. DEAN MANDRELL
Materials Testing Supervisor

HDM:eb

cc: W. J. Hart

Form FHWA-121 (12-[illegible])

UNITED STATES GOVERNMENT

Memorandum

7311

U. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon
Attn: Mr. A. E. Johnson

DATE: February 28, 1973

In reply refer to: 10-35.6

FROM : for R. W. Arens
Vernon V. Cusack, Acting Division Engineer
Salem, Oregon

NOTED
H. S. COULTER

#7214

SUBJECT: Oregon Project I-405-8(20)303 and
I-405-8(22)304 – #7310 & #7311
Fremont Bridge Approaches
Paint Claim

We have received word from our Regional Counsel on his review of the Saroyan report and the Canron Limited description of the difficulty encountered on the paint application of Fremont Bridge Interchange superstructure.

It should be pointed out that this myriad of information deals only with the subcontractor's problems with meeting the specifications, and there is no indication as to what type or amount of claim the prime contractor may make. Further, it is noted that the State has not given their analysis, engineering and legal, as to the propriety of the subcontractor's claim.

Our review indicates that the subcontractor appears to be entitled to an equitable adjustment. The specifications, in the view of the expert hired by both sides (John R. Saroyan), were defective and could not achieve the desired results; thus, the State would be subject to liability as drafter of the specifications. This does not exlude the possibility that there may be certain responsibilities accruing to Canron Limited.

It is difficult to come to any conclusion without the contractor's specific claim and the respective support. This information must be submitted to evaluate the validity of the claim. We feel that it is necessary for the State to document their position in a similar manner to the Canron Limited submittal. Until this is accomplished Federal Highway Administration is not in a position to approve or disapprove any adjustment.

cy. Linder
Coulter
Hamb
Boehmler
Cunningham

Info	FOR	REFER TO	MAR 1 73	STATE HWY ENGR	RECEIVED
'nves					
R/D					
D/R					
Sign					
Act					
File					

RECEIVED
MAR 5 1973
Office of Assistant State Highway Engineer

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

cy. acj-

GPO 917-544

OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO V. V. Cusack, Acting Division Engineer
~~R. L. Simpson, Division Engineer~~
Federal Highway Administration

DATE February 27, 1973

Federal-aid Project
No. I-405-8(23)304

FROM ORIGINAL SIGNED BY
R. D. ASBURRY
L. H. Young
Office Engineer

SUBJECT Request Change Order Approval

Contract 7311 State Force Order No. 4

Project East Fremont Interchange, Unit "B"

Highway Stadium Freeway

County Multnomah

The order covers State forces welding the manhole covers to the frames. It is in the public's interest for State forces to perform this work as a safety measure to prevent vandals from removing the covers and throwing them off the bridge onto the roadway or tracks below, and also because the contract work has been completed by the contractor and his forces are no longer on the project.

This work conforms to the requirements of PPM 21-612 as required for Federal participation. The estimated total cost of the work to be done under this order is $485.00 with Federal participation of $436.50. Reimbursement on an actual cost basis is requested.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on February 8, 1973.

Your approval as of February 8, 1973 is requested.

Attach.

JK:dgk

Gen. Lilles

RECEIVED
STATE HWY ENGR
JAN 22 '73
REFER TO
FOR
Info | Invest | R/W | D/R | Sign | Act | File

OREGON STATE HIGHWAY DIVISION

7311

January 19, 1973

NOTED
A. E. JOHNSON

Mr. Donald J. Howe
Assistant Attorney General
Department of Justice
Salem, Oregon 97310

Re: Fremont Bridge Painting

Dear Mr. Howe:

Attached is a summary of climatic and air contamination readings for the period September 1970 through May 1971 at Portland, Oregon, Vancouver, B.C., and Richmond, California. These summaries were compiled from governmental records for the individual locations.

Vancouver, B.C. and Portland experienced similar climatic conditions during the period Vancouver had less total precipitation during the period, but had a slightly higher average relative humidity. Vancouver's average temperature was also less than Portland's. The higher humidity and the lower average temperature would both be detrimental to the paint system used on the Fremont approaches.

The average air pollution as measured by SO_2 readings for Portland and Vancouver was very close to being the same.

A comparison of Portland and Richmond, California, where the Fremont main span was fabricated and painted, shows that the average temperature in Portland was lower and the total rainfall was much higher than Richmond. The air pollution in Richmond was considerably less than Portland. All of these factors would tend toward a better environment for paint application in Richmond than in Portland.

From the data summaries, I would conclude that any claim that the poor environment in Portland caused the failure of inorganic zinc primer in Vancouver would be invalid. The environment in Portland is no worse than Vancouver, in fact, is some better. Also, if the poor environment in Portland would cause the total failure of the inorganic zinc, on the work done in Vancouver, why then did it not cause the total failure of the inorganic zinc primer on the work done in Richmond?

I hope this has been helpful to you. If there is any additional information you need, please contact us.

Yours truly,

GEORGE M. BALDWIN
Administrator of Highways

By

J. E. CHIDSEY
Structural Quality Control Engineer

Attachment

JEC:eb

cc: A. E. Johnson
Walt Hart
Leonard Lindas

Form 734-6722-734

OREGON STATE HIGHWAY DIVISION

TABULATION SHEET

SHEET ..... OF ..... SHEETS

	Portland City Averages				Richmond Averages			Vancouver B.C.			
	Temp	R.H	Precip	Dep from Norm	Temp	Precip	Dep from Norm	Temp	R.H	Precip	Dep from Norm
Sept 70	61.7°	61%	1.83"	+0.09"	62.3°	—	—	54.7°		2.95"	+0.85
Oct	55.2°	70%	3.04"	-0.85"	60.4°	1.00"	—	47.4°		2.58"	-2.04
Nov	48.5°	75%	7.60"	+1.56"	58.1°	7.01"		41.3°		3.46"	-1.98"
Dec	41.5°	84%	10.24"	+2.82"	49.5°	6.29"		37.2°		6.61"	+0.17
Jan 71	41.9°	85%	9.18"	+2.84"	50.6°	2.19"		35.8°	86%	8.28"	+2.76"
Feb	44.3°	79%	5.35"	+0.45"	52.9°	0.23"		39.3°	82%	5.59"	+0.35"
Mar	45.4°	72%	5.96"	+1.18"	54.0°	2.26"		39.9°	74%	6.29"	+2.53
Apr	52.0°	67%	3.35"	+0.90"	55.8°	0.88"		46.7°	70%	1.99"	-0.31
May	58.4°	65%	1.14"	-0.91	57.8°	0.08"		53.2°	73%	1.67"	-0.25
				Dev from Norm					Avg of 5		
Ave	49.9°	73%	5.30	8.08"	56.2°	2.22"		43.9°	77%	4.38"	+2.58"
Total			47.69"			19.94				39.45	

Form E-40

OREGON STATE HIGHWAY DIVISION

TABULATION SHEET

SHEET ..... OF ..... SHEETS

24 hr Monthly SO_2 Ave from Sept 70 - May 71

	Portland				Richmond				Vancouver		
	Min	Max	Ave		Min	Max	Ave		Min	Max	Ave
70 Sep	0.001	0.017	0.005			0.024	0.009				0.020
Oct	0.001	0.052	0.016			0.024	0.007				0.015
Nov	0.001	0.055	0.023			0.020	0.009				0.020
Dec	0.006	0.073	0.027			0.016	0.006				0.015
71 Jan	0.008	0.086	0.032			0.045	0.014				0.019
Feb	0.002	0.052	0.019			0.033	0.011				0.022
Mar	0.001	0.045	0.016			0.019	0.004				0.022
Apr	0.001	0028	0.015			0.009	0.002				0.022
May	0.001	0.032	0.007			0.002	0.006				0.014
Ave.			0.018				0.008				0.019

RECEIVED
JAN 5 - 1973

FOR FILING

OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE January 4, 1973

TO ~~G. L. Green, Division Engineer~~
~~R. E. Simpson, Division Engineer~~
Federal Highway Administration

Federal-aid Project No. I-405-8(23)304

FROM ORIGINAL SIGNED BY R. D. ASBURRY

L. H. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7311 Extra Work Order No. 11 supplemental #1

Project East Fremont Interchange, Unit B

Highway Stadium Freeway

County Multnomah

This order covers the additional cost to complete the repair to the damaged zinc primer on the steel girders as called for by the original order. Access to the exterior surfaces of the steel girders was not available when the estimate of cost was prepared for the original order, the estimate of work was underestimated due to this. The original order covering this work was approved by your office effective April 12, 1971.

Copies of the engineer's letter of explanation are attached.

This work was tentatively recommended for approval by the Federal Highway Administration Assistant Area Engineer effective April 12, 1971, date of the original order.

Your approval as of April 12, 1971 is requested.

Attach.

BMW:dgk

STEEL STRUCTURES PAINTING MANUAL

Volume 2

SYSTEMS AND SPECIFICATIONS

Second Edition

Prepared by a Staff of Specialists
under the Editorship of

JOHN D. KEANE

Senior Fellow, Mellon Institute
Director of Research, Steel Structures Painting Council

STEEL STRUCTURES PAINTING COUNCIL

4400 FIFTH AVENUE • PITTSBURGH, PA. 15213

1972

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Table of Contents*

			PAGE
FOREWORD			v
SECTION ONE:	GENERAL		
	How to Use SSPC Specifications		1
	Table I General Painting Guide for Steel Structures		5
	Table II Special Painting		11
	Table III Indexed Painting Recommendations for Steel		17
	Table IV Painting of Non-Ferrous Building Materials		30
SECTION TWO:	SURFACE PREPARATION		33
	Surface Preparation Guide		35
	Surface Preparation Specifications		
	SSPC-Vis 1-67T	No. 1 Pictorial Surface Preparation Standards for Painting Steel Surfaces	45
	[SSPC-Vis 2-68T]	No. 2 *Standard Methods of Evaluating Degree of Rusting on Painted Steel Surfaces*	46A
	SSPC-SP 1-63	No. 1 Solvent Cleaning	47
	SSPC-SP 2-63	No. 2 Hand Tool Cleaning	53
	SSPC-SP 3-63	No. 3 Power Tool Cleaning	57
	SSPC-SP 4-63	No. 4 Flame Cleaning of New Steel	59
	SSPC-SP 5-63	No. 5 White Metal Blast Cleaning	61
	SSPC-SP 6-63	No. 6 Commercial Blast Cleaning	65
	SSPC-SP 7-63	No. 7 Brush-Off Blast Cleaning	69
	SSPC-SP 8-63	No. 8 Pickling	73
**	SSPC-SP 9-63T	No. 9 Weathering Followed by Blast Cleaning	75
	SSPC-SP 10-63T	No. 10 Near-White Blast Cleaning	77
SECTION THREE:	PRETREATMENT		83
	Pretreatment Guide		85
	Pretreatment Specifications		89
	SSPC-PT 1-64	Wetting Oil Treatment	89
	SSPC-PT 2-64	Cold Phosphate Surface Treatment	91
Attached →	SSPC-PT 3-64	Basic Zinc Chromate—Vinyl Butyral Washcoat	95
	SSPC-PT 4-64	Hot Phosphate Surface Treatment	99
SECTION FOUR:	PAINT APPLICATION		101
	Paint Application Guide		103
	SSPC-PA 1-64	Shop, Field and Maintenance Painting	108
SECTION FIVE:	PAINT SPECIFICATIONS		123
	Discussion of Paint Specifications		125
	SSPC Paint Specifications		
	SSPC-Paint 1-64T	No. 1 Red Lead and Raw Linseed Oil Primer	147

[*Please note 1968 additions in italics.]

** Discontinued January 1, 1971

(Continued)

listed as applicable spec. in Special Provisions

			PAGE
SSPC-PAINT 2-64	No. 2	RED LEAD, IRON OXIDE, RAW LINSEED OIL AND ALKYD PRIMER	151
* SSPC-PAINT 3-64T	No. 3	RED LEAD, IRON OXIDE, AND FRACTIONATED LINSEED OIL PRIMER	155
SSPC-PAINT 4-64T	No. 4	EXTENDED RED LEAD, RAW AND BODIED LINSEED OIL PRIMER	159
SSPC-PAINT 5-64T	No. 5	ZINC DUST, ZINC OXIDE, AND PHENOLIC VARNISH PAINT	163
SSPC-PAINT 6-64T	No. 6	RED LEAD, IRON OXIDE, AND PHENOLIC VARNISH PAINT	169
SSPC-PAINT 8-64	No. 8	ALUMINUM VINYL PAINT	175
SSPC-PAINT 9-64	No. 9	WHITE (OR COLORED) VINYL PAINT	179
SSPC-PAINT 11-64T	No. 11	RED IRON OXIDE, ZINC CHROMATE, RAW LINSEED OIL AND ALKYD PRIMER	183
SSPC-PAINT 12-64	No. 12	COLD APPLIED ASPHALT MASTIC (EXTRA THICK FILM)	187
SSPC-PAINT 13-64	No. 13	RED OR BROWN ONE-COAT SHOP PAINT	193
SSPC-PAINT 14-64T	No. 14	RED LEAD, IRON OXIDE & LINSEED OIL PRIMER	197
[SSPC-PAINT 15-68T]	No. 15	*Steel Joist Shop Paint*	202A
[SSPC-PAINT 16-68T]	No. 16	*Coal Tar Epoxy-Polyamide Black (or Dark Red) Paint*	202D
SSPC-PAINT 101-64T	No. 101	ALUMINUM ALKYD PAINT	203
SSPC-PAINT 102-64	No. 102	BLACK ALKYD PAINT	209
SSPC-PAINT 103-64T	No. 103	BLACK PHENOLIC PAINT	213
SSPC-PAINT 104-64	No. 104	WHITE OR TINTED ALKYD PAINT	217
SSPC-PAINT 106-64	No. 106	BLACK VINYL PAINT	221
SSPC-PAINT 107-64T	No. 107	RED LEAD, IRON OXIDE AND ALKYD INTERMEDIATE PAINT	225

SECTION SIX: PAINT SYSTEMS 229

COMMENTARY ON PAINT SYSTEMS 231

SSPC PAINT SYSTEM SPECIFICATIONS

SSPC-PS 1.00 THROUGH 1.06-64T	OIL BASE SYSTEMS (FOR WEATHER EXPOSED WIRE-BRUSHED STEEL)	249
SSPC-PS 2.00 THROUGH 2.05-64T	ALKYD PAINT SYSTEMS (FOR WEATHER EXPOSURE)	267
SSPC-PS 3.00-64T	PHENOLIC PAINT SYSTEMS	283
SSPC-PS 4.00 THROUGH 4.05-64T	VINYL PAINT SYSTEMS (FOR EXPOSURE IN WATER IMMERSION, CONDENSATION, WEATHER OR CHEMICALS)	287
SSPC-PS 6.00 THROUGH 6.03-64T	PAINT SYSTEMS FOR VESSELS	303
SSPC-PS 7.00 THROUGH 7.01-64T	ONE-COAT SHOP PAINT SYSTEMS FOR STRUCTURAL STEEL	319
SSPC-PS 8.01-64T	RUST PREVENTIVE COMPOUNDS (THICK FILM)	327
SSPC-PS 9.01-64T	ASPHALT COATINGS (COLD-APPLIED MASTIC)	331
SSPC-PS 10.01 THROUGH 10.02-64T	COAL TAR COATING SYSTEMS (HOT AND COLD, APPLIED)	333
[SSPC-PS 11.01-68T]	*Coal Tar Epoxy-Polyamide Black (or Dark Red) Paint System*	341A
Attached → SSPC-PS 12-64P	*Guide to Zinc-Rich Coating Systems*	342A
[SSPC-PS 12.00-68T]	EPOXY PAINT SYSTEM IN PREPARATION	343
SSPC-PS 13-64P	*Steel Joist Shop Paint System*	344A
[SSPC-PS 14.01-68T]		

INDEX: 345

* Discontinued January 1, 1971

Steel Structures Painting Council Pretreatment Specifications

No. 3 Basic Zinc Chromate–Vinyl Butyral Washcoat

1. Scope

1.1 This specification covers the procedures required for the basic zinc chromate-vinyl butyral washcoat pretreatment of structural steel surfaces prior to painting.

2. Definition

2.1 Basic Zinc Chromate-Vinyl Butyral Washcoat (sometimes referred to as wash primer) is a pretreatment for metals which reacts with the metal and at the same time forms a protective vinyl film which contains an inhibitive pigment to help prevent rusting. This washcoat is supplied as two components which are mixed together just prior to use. The base contains an alcohol solution of polyvinyl butyral resin pigmented with basic zinc chromate. The diluent contains an alcohol solution of phosphoric acid which reacts with the vinyl resin, the pigment, and the steel.

2.2 It is intended that this pretreatment be used primarily on clean steel free of rust and scale or on clean galvanized metal; but it may be used, when specified, on steel with very slight amounts of rust.

3. Procedures

3.1 Basic Zinc Chromate-Vinyl Butyral Washcoat pretreatment shall consist of the following sequence of operations:

3.1.1 Specified surface preparations shall be completed first. Any dust or dirt shall be removed from the surface. Oil and grease shall be removed from the surface by methods provided in SSPC-SP 1-63, "Solvent Cleaning."

3.1.2 As soon as practicable and before fusting of the surface occurs, the surface shall be pretreated with material which meets the following specifications: MIL-P 15328B dated 5 May 1961, or Bureau of Ships Formula 117.

3.1.3 Four volumes of base shall be mixed with one volume of diluent as follows: First break up the pigment settled in the base with a wooden paddle, mechanical stirrer, or mixer, and mix to distribute the pigment evenly throughout the base. After the base is thoroughly mixed, slowly pour one volume of the diluent into four volumes of the base with constant agitation. Do *not* pour off the liquid which has separated from the pigment and then add the diluent to the settled pigment to aid mixing. Material which is not mixed properly may gel and be unfit for use. The washcoat base shall be mixed with the diluent in quantities which will be applied within six to eight hours after mixing. The pretreatment is most effective when freshly mixed. Storage periods in excess of eight hours may make the mixed material useless.

3.1.4 Apply the washcoat pretreatment by spraying or brushing. Spraying is generally the preferred method, but brushing may be desirable over rough or poorly prepared steel. Roller coating may be used only if specified. Paint brushes should be clean and dry, or wetted with alcoholic solvents. The washcoat should be strained before spraying. When spraying avoid excess air pressure or liquid pressure.

3.2 Apply to a dried film thickness of 0.3 to 0.5 mils which is usually obtained at a spreading rate of about 250 to 350 square feet per gallon. Note that at this thickness, which should not be exceeded, the base metal will show through the washcoat as evidenced by uneven coloring. This is the normal appearance; do not attempt to apply washcoat so as to obtain complete hiding.

3.3 When sprayed, the washcoat must be deposited on the surface wet; if dusting is encountered, move the gun closer to the surface; if already within six inches of the surface, decrease atomizing air pressure or increase the liquid pressure, or add thinner.

3.4 Where further thinning is desired isopro-

Ref 2

panol (99% grade) or butanol (normal butyl alcohol) or denatured ethanol should be used. At least 25% thinning is usually necessary to get a uniform application.

3.5 When spot treating, cover only spots free of old paint. Slight overlap of existing paints is generally not harmful provided adherence of the washcoat to the old paint is satisfactory and the old paint is not lifted.

3.6 Washcoat that cannot be used within a maximum of eight hours after mixing with diluent shall be discarded and not be used.

3.7 Use denatured ethyl or isopropyl alcohol to clean equipment.

3.8 Paint may be applied as soon as the washcoat is dry—usually one half to four hours except when otherwise authorized by the inspector.

3.9 This pretreatment should be applied over clean, dry steel; however, a slightly damp surface may be painted over provided adequate normal butyl alcohol is used in the thinner. If the surface is excessively wet, the vinyl butyral resin will be thrown out of solution and form a gel, or the dried film will turn white, become brittle and lack adhesion to the steel.

3.10 This pretreatment is not intended for use as a shop coat for steel and it should be coated with the prime coat of paint before exposure. However, it may provide temporary protection for normal outdoor exposures of several weeks provided it is not exposed to very humid conditions or water does not collect on its surface.

4. Safety Precautions

4.1 Washcoat primers contain highly volatile and flammable solvents. The usual safety precautions in handling flammable solvents should be observed. Toxic hazards to personnel must be kept in mind when working in closed spaces. The usual acid handling precautions to eyes and hands should be exercised in use of the acid component.

5. Inspection

5.1 All work under this specification shall be subject to inspection by the owner or his representative. All parts of the work shall be accessible to the inspector. The contractor shall correct such work as is found defective under the specifications. If the contractor does not agree with the inspector, the arbitration or settlement procedure established in the contract, if any, shall be followed. If no arbitration or settlement procedure is established, the procedure specified by the American Arbitration Association shall be used.

Appendix

A.1 SCOPE. The recommendations contained in this appendix are believed to represent current good practice, but are not to be considered as requirements of the specifications.

A.2 This pretreatment should not be considered as a coat of paint. It is intended for use over clean, dry, descaled steel; however, it does not work well over phosphate treated steel, and should not be used over paint or wetting oils. While it must be used on bare metal for best results, it has shown merit when used as a pretreatment over slightly rusted surfaces or tight mill scale when compared to conventional paint systems without the pretreatment over the same type of surface. Over loose mill scale, however, it may, under certain conditions, contribute to mill scale lifting.

A.3 This pretreatment may be used to bond conventional paints to galvanized surfaces or stainless steel. Solvent cleaning of such surfaces, even though apparently clean, is advisable before applying the pretreatment. Adhesion to some types of white rust preventives on galvanized steel has been poor.

A.4 Almost all paints will adhere well to this pretreatment; exceptions are certain types of vinyl paints and some lacquers; these coatings may require an intermediate or bonding coat. Paints containing alcohol or ketone solvents generally show best bonding.

A.5 This pretreatment may be used to inhibit rusting under cold-applied asphalt and coal tar coatings, or other coatings of low permeability and little or no rust inhibiting capacity.

A.6 Basic zinc chromate pigment in this pretreatment has a tendency to settle hard in the container; to avoid difficulty in dispersing settled pigment, fresh material should be used, and the oldest material always used first.

A.7 Detailed composition and physical properties

of the washcoat are covered in the quoted specifications. An approximate summary of the composition is in adjacent column.

One volume of acid diluent is mixed with four volumes of pigmented base just prior to use. The mixed material should weigh about 7.7 pounds per gallon and should contain about 10.2 per cent by volume of nonvolatile matter, giving a theoretical coverage of 320 square feet per gallon at 0.5 mil thickness or 530 at 0.3 mils.

A.8 Drying time naturally varies with the drying conditions; however, the washcoat should normally dry to handle in 15 to 30 minutes, and dry for recoating in one half to one hour.

A.9 Butyl alcohol (butanol) may be added to reduce blushing during high humidity application or for slightly damp surfaces.

	% by wt.	*lb/100 gal.*
Pigment Base		
Polyvinyl butyral resin...	9.2%	56
Basic zinc chromate	8.8	54
Magnesium silicate.....	1.3	8
Lampblack	0.1	0.6
Butyl alcohol, normal....	20.5	125
* Isopropyl alcohol	57.7	353
Water	2.4	15
	100.0	612
Acid diluent		
85% Phosphoric acid	18.5%	28
Water (maximum)	16.5	25
* Isopropyl alcohol	65.0	99
	100.0	152

* Isopropyl alcohol and water in the pigment base may be replaced by ethyl alcohol O-E-760 Grade III (61.3 parts). In the acid component it may be replaced by 67 parts of ethyl alcohol.

Steel Structures Painting Council Specifications No. 12 Zinc-Rich Coating System in Preparation

1. Scope

1.1 This SSPC Paint System Specification is under preparation for issuance as indicated by the "P" following the year number in the code.

1.2 The specification covers a group of coatings, typified by high zinc dust content, formulated to provide hard, tough, abrasion resistant protection to steel with varying degrees of rust inhibition by virtue of the galvanic protection provided by the zinc. These coatings may be used under normal inland conditions, but are mainly intended for use under conditions of high humidity or marine atmospheric exposures, both exterior and interior, and for fresh water immersion. They may, by proper topcoating, be used in brackish and seawater immersion and for exposure to chemical (acid and alkali) fumes. These coatings require a white metal blast cleaned surface for best results and are usually applied in one coat 2 to 5 mil dry film thickness over the cleaned steel.

2. Description

2.1 High zinc content coatings comprise a number of different commercial types. These coatings may be composed of organic or inorganic vehicles. The *organic* vehicles used are chlorinated rubber, epoxies, polyesters, vinyls, urethanes, and other suitable vehicles usually with a zinc dust content of 85 to 95% by weight of the total non-volatile content.

Among the *inorganic* vehicles used are silicates, silicate esters, phosphates, silicones and modifications thereof usually with a zinc dust content upwards of 75% by weight of the total non-volatile content. The inorganic vehicles may be self-cured (converted or hardened to a state of water and solvent immobility), or post cured with a separate wash solution, usually mildly acidic in nature applied as an aftercoat. Many of the coatings are supplied with the zinc pigment packaged separately to be mixed at the time of application. Most coatings have a limited pot life which may be as low as six hours.

2.2 *For best results, these coatings should be used over white metal blast cleaned steel (SSPC-SP 5-63)*, although the degree of surface preparation required varies for specific coatings. Some coatings must be used only over the best surface preparation; others will tolerate somewhat lesser preparation; and still others, including many based on organic vehicles, will provide satisfactory performance under some conditions of mild service over no more than a good mechanically hand cleaned surface. Likewise, the degree of tolerance for high humidity (over 95% relative), damp surface prior to application, moisture after application, temperature during application and the drying or curing period, varies considerably from coating to coating. Therefore, adequate instructions from the manufacturer are essential and must be closely followed to obtain best performance from these coatings.

2.3 These coatings vary in application characteristics, but in general may be applied by brush or spray. Due to the galvanic action of the zinc, these coatings can give satisfactory performance under mildly corrosive conditions with one coat application as little as 2 mils thick. Most of the coatings can be self-coated or topcoated with epoxies, vinyls, etc., immediately or at a later date, for better performance under more severe exposures. Special precautions in cleaning the prime coat prior to self-coating or topcoating may be required.

Tie coats are necessary between some zinc rich coatings and some of the special topcoats. The importance of obtaining and following manufacturer's recommendations cannot be overemphasized.

Ref 6

2.4 Variations in properties of these coatings depend largely on the vehicle. All zinc-filled coatings, however, are unsuitable for acidic or alkaline service without overcoating. The *inorganic* coatings have outstanding ability to withstand exposure to solvents, oils and petroleum products. They are unaffected by aliphatics, aromatics, ketones, or alcohols. They resist dry chlorinated hydrocarbons, but are attacked by wet chlorinated solvents which release hydrochloric acid. They are very resistant to high humidity, splash and spray, but should be topcoated for prolonged continuous salt water exposure. Recommended top temperatures are 140° F. wet or 700° F. dry, although certain topcoats can raise the latter limit to 1000° F. Abrasion resistance on structural steel plate has been shown to be excellent in SSPC tests. Weathering of the inorganic coatings is considered outstanding as the coatings continue to cure during prolonged exposure.

Compared with the inorganics, the *organic* coatings are generally more tolerant of poor surface preparation, humidity and moisture at time of application. They tend to have better compatibility with topcoats and to be more flexible, but to be somewhat less tough and abrasion resistant than the inorganic materials. Their top temperature limits vary widely, although certain coatings can stand 212° F. wet and 400° F. dry. Resistance to solvents varies widely, depending on the vehicle used. As might be expected, their properties combine the properties of the vehicle with the abrasion resistance and galvanic action of the zinc.

2.5 The choice of the best coating for a specific end use must be made by a comparison of properties with the requirements of the service. Application and surface preparation problems may limit the choice. Flexibility of coating may be a factor. The degree of corrosion inhibition desired may be a prime consideration. High zinc content coatings are characterized by the abrasion resistance, toughness of film and galvanic protection afforded by the zinc. Many formulations exhibit high reactivity initially but develop a layer of zinc corrosion products that retard further zinc sacrifice until damage of the film exposes the substrate. However, the more active the zinc is in providing galvanic protection, the faster the coating will break down, unless protected by the zinc corrosion products or by the use of topcoats. Unless galvanic protection is the major factor, (in which case, other forms of cathodic or anodic protection should be considered) the better coatings from the standpoint of long-term durability must be formulated carefully to match the protection afforded by the zinc to that required by the substrate when there are small minor scratches or breaks in the coating.

3. Tentative Requirements

3.1 Coating History: The supplier shall furnish documented information with authenticated data detailing the past history and experience with the coating in terms of service life under specific conditions pertinent to the purchase inquiry. All details relative to surface preparation and application of coating shall be supplied. Sufficient identifiable characteristics other than trade or brand name or designation number or symbol shall be provided to permit laboratory test verification of coating identity. These characteristics shall include formulation information readily derivable in a laboratory, including the general nature of the vehicle, pigment, and volatile portions, the weight per gallon, and other procedures used for quality control during manufacture of the coating. A specific test to serve as a further specific identification such as rate of breakdown of the dried film by acid immersion or decomposition characteristics under increasing temperature shall be stipulated.

3.2 The coating shall have a minimum weight per gallon of 18 pounds.

3.3 The coating shall have a minimum zinc content of 75% by weight of the nonvolatile portion.

3.4 The dried coating (72 hours drying time) on a blast cleaned steel panel when scratched with the cut end of a common paper clip shall be abraded through to the steel only with considerable difficulty and shall not flake or show other signs of poor adhesion adjacent to the cut. When rubbed with the rounded end of the paper clip, the coating shall be burnished to the characteristic zinc appearance.

3.5 The coating shall be applied to a 3 inch wide by 5 inch high, 12 gauge white metal blast cleaned hot-rolled steel panel and dried for 48 hours with a centrally positioned inverted V cut to base metal, varying in width from one-half inch at

the bottom to zero at the top of the panel. When subjected to 96 hours salt spray in accordance with Method 6061 of Federal Test Method Standard No. 141, either 5 or 20% salt solution, this coated panel shall show no rust on the top one inch of the V cut or on the coated area, and must show moderate rust one inch from the bottom of the V.

4. Safety

Container labels and application instructions shall conform to the suggested wording of the Manufacturing Chemists Association publication, "Guide to Precautionary Labelling of Hazardous Chemicals."

5. Inspection

All work and materials supplied under this specification shall be subject to inspection by the owner or his representative.

The coating shall be tested to the extent agreed upon by the buyer and seller for conformance to the requirements of Section 3.

Appendix

A.1 In choice of product, the buyer is cautioned to consider the specific history, application characteristics, intended end use, and the assistance furnished by the supplier rather than price alone.

A.2 Pending adoption of a zinc rich specification, the SSPC will welcome comments on the use of this "in preparation" version.

A.3 Other Specifications: A limited number of public specifications are presently available. MIL-P-23236 is a performance specification requiring a lengthy succession of laboratory tests for qualification, followed by an 18-month field test. It is not limited to zinc-rich paints but also covers other classes of paint systems representing urethanes, epoxies and coal tar epoxies. None of the coating systems covered by MIL-P-23236 is suitable for use in fresh or potable water tanks except by conformation to additional requirements. Both two-package and one-package products are on the qualified product list. Another Government specification, MIL-P-26915A, is written in such a way that materials having a relatively low zinc content (70 to 80% of total solids) will qualify; this is usually insufficient for true sacrificial protection. This specification provides for several types of accelerated weathering and for an electrical resistance measurement. It does not require any particular vehicle, either organic or inorganic as long as it is "suitable for the intended purpose." Although the MIL-P-26915 specification requires the Type II (high purity) grade zinc dust, the less expensive Type I (standard) grade zinc dust formulas are suggested for all applications except on interiors or potable (drinking) water containers.

The third Government specification, MIL-P-21035, also specifies no particular vehicle, but does require a higher minimum zinc content (94% pigment x 97.5% zinc). It also requires a salt spray durability test. The Type I, regular quality zinc dust is specified, but it is recommended that the Type II (high purity), grade zinc dust be used for potable (drinking) water containers.

Descriptions of the zinc dust-zinc oxide type of specification (TT-P-641b, MIL-P-17545B, MIL-P-15145B, SSPC Paints 5 and 6) are given in SSPC Paint System 1.00, 2.00 and 3.00.

SSPC-PS 12.00-68T
Corrected Draft — June 1, 1968

STEEL STRUCTURES PAINTING COUNCIL

SPECIFICATION No. 12.00

GUIDE TO ZINC-RICH COATING SYSTEMS

1. SCOPE

1.1 This guide covers a group of coatings, typified by high zinc dust content, formulated to provide hard, tough, abrasion resistant protection to steel with varying degrees of rust inhibition by virtue of the galvanic protection provided by the zinc. These coatings may be used under normal inland conditions, but are mainly intended for use under conditions of high humidity or marine atmospheric exposures, both exterior and interior, and for fresh water immersion. They may, by proper topcoating, be used in brackish and sea-water immersion and for exposure to chemical (acid and alkali) fumes. These coatings normally require a near-white metal blast cleaned surface for best results and are usually applied in one coat 2 to 5 mil dry film thickness over the cleaned steel. Some are used as prefabrication primers or shop primers, often at lesser thicknesses, where they are applied to freshly blast cleaned steel plates and sections and are intended to protect the steel throughout the fabrication period until the final painting system can be applied to the finished structure.

2. DESCRIPTION

2.1 Zinc-rich coatings comprise a number of different commercial types. These coatings may be composed of organic or inorganic vehicles. The organic vehicles used are chlorinated rubber, styrene, epoxies, polyesters, vinyls, urethanes, silicones and other suitable vehicles usually with a zinc dust content of 80 to 95% by weight of the total non-volatile content.

Among the inorganic vehicles used are silicates, silicate esters, phosphates, and modifications thereof usually with a zinc dust content upwards of 75% by weight of the total non-volatile content. The inorganic paints may be self-cured (converted or hardened to a state of water and solvent insolubility), or post cured with a separate wash solution, usually mildly acidic in nature applied as an aftercoat.

Many of the coatings are supplied with the zinc pigment packaged separately to be mixed at the time of application. Most coatings have a limited pot life which may be as low as six hours with some formulations.

2.2 For best results, these coatings should be used over near-white metal blast cleaned steel (SSPC-SP 10-63), although the degree of surface preparation required varies for specific coatings. Some coatings must be used only over the best surface preparation; others will tolerate somewhat lesser preparation; and still others, including many based on organic vehicles, will provide satisfactory performance under some conditions of mild service over no more than a good mechanically hand cleaned surface. Likewise, the degree of tolerance for high humidity, damp surface prior to application, moisture after application, temperature during application and the drying or curing period, varies considerably from coating to coating. Therefore, adequate instructions from the manufacturer are essential and must be closely followed to obtain best performance from these coatings.

2.3 These coatings vary in application characteristics. All are preferably applied by spray, but may be brushed for small jobs, or to force into surface irregularities. Due to the galvanic action of the zinc, these coatings can give satisfactory performance under mildly corrosive conditions with one coat application as little as 2 mils thick. Most of the coatings can be self-coated or top-coated with epoxies, vinyls, etc., immediately or at a later date, for better performance under more severe exposures. Special precautions in cleaning the prime coat prior to selfcoating or topcoating may be required.

Tie coats are necessary between some zinc rich coatings and some of the special topcoats. The importance of obtaining and following manufacturer's recommendations cannot be overemphasized.

2.4 Variations in properties of these coatings depend largely on the vehicle. All zinc-filled coatings, however, are unsuitable for acidic or alkaline service without overcoating. The inorganic coatings have outstanding ability to withstand exposure to solvents, oils and most petroleum products. They are unaffected by aliphatics, aromatics, ketones, or alcohols. They resist dry chlorinated hydrocarbons, but are attacked by wet chlorinated solvents which release hydrochloric acid. They are very resistant to high humidity, splash and spray, but should be topcoated for prolonged continuous salt water exposure. Recommended top temperatures are 140°F wet or 700°F dry, although certain topcoats can raise

the latter limit to 1000°F. [illegible]sive resistance on structural steel plate has been shown to be excellent in SSPC tests. Weathering of the inorganic coatings is considered outstanding as the coatings continue to cure during prolonged exposure.

Compared with the inorganics, the organic coatings are generally more tolerant of variation in surface preparation quality. They tend to have better compatibility with topcoats and to be more flexible, but to be somewhat less tough and abrasion resistant than the inorganic materials. Their top temperature limits and resistance to solvents vary widely, depending on the vehicle used. As might be expected, their properties combine the properties of the vehicle with the abrasion resistance and galvanic action of the zinc.

2.5 The choice of the best coating for a specific end use must be made by a comparison of properties with the requirements of the service. Application and surface preparation problems may limit the choice. Flexibility of coating may be a factor. The degree of corrosion inhibition desired may be a prime consideration. Zinc-rich coatings are characterized by the abrasion resistance, toughness of film and galvanic protection afforded by the zinc. Many formulations exhibit high reactivity initially but develop a layer of zinc corrosion products that retards further zinc sacrifice until damage of the film exposes the substrate. However, the greater the galvanic demand on the zinc, the faster the coating will break down, unless protected by the zinc corrosion products or by the use of topcoats. Unless galvanic protection is the major factor, (in which case other forms of cathodic or anodic protection should be considered) the better coatings from the standpoint of long-term durability must be formulated carefully to match the protection afforded by the zinc to that required by the substrate.

3. TENTATIVE REQUIREMENTS

3.1 Coating History: Documented information with authenticated data detailing the past history and experience with the coating in terms of service life under specific conditions should be requested prior to purchase. All details relative to surface preparation and application of coating shall be supplied. Sufficient identifiable characteristics other than trade or brand name or designated number or symbol shall be provided to permit laboratory test verification of coating identity. These characteristics shall include formulation information readily derivable in a laboratory, including the general nature of the vehicle, pigment, and volatile portions, the weight per gallon, the percent solids by volume, and other procedures used for quality control during manufacture of the coating.

3.2 Inorganic coatings shall have a minimum zinc content of 75% by weight of the non-volatile portion. The corresponding value for organic coatings shall be 80%.

3.3 The dried coating (7 days drying time) on a blast cleaned steel panel when scratched with the cut end of a common paper clip shall be abraded through to the steel only with considerable difficulty and shall not flake or show other signs of poor adhesion adjacent to the cut. When rubbed with the rounded end of the paper clip, the coating shall be burnished to the characteristic zinc appearance.

3.4 The coating shall be applied and cured according to the manufacturer's recommendation to all surfaces, except as noted, of a 4-inch wide by 6-inch high, white metal blast cleaned hot-rolled steel panel. Before application to the face of the panel, a centrally positioned inverted V-shaped area one-half inch wide at the bottom of the panel and zero width at the top edge shall be masked to prevent application of coating to this area. After curing, the mask shall be removed and, if masking was done by means of tape, any traces of remaining adhesive shall be removed by washing with mineral spirits. When subjected to 96 hours of salt spray in accordance with Method 6061 of Federal Test Method Standard No. 141, with 5% salt solution, at least 10% of the uncoated area shall show red rusting that is no more than moderate in degree and at least 10% of the uncoated area shall be free of rust. In addition, no rusting shall be evident on the coated area.

4. SAFETY

Container labels and application instructions shall conform to the suggested wording of the Manufacturing Chemists Association publication, "Guide to Precautionary Labelling of Hazardous Chemicals."

5. INSPECTION

All work and materials supplied under this specification shall be subject to inspection by the buyer or his representative.

The coating shall be tested to the extent agreed upon by the buyer and seller for conformance to the requirements of Section 3.

APPENDIX

A.1 In choice of product, the buyer is cautioned to consider the specific history, application characteristics, mil-square feet coverage, intended end use, and the assistance furnished by the supplier rather than price alone.

A.2 Pending adoption of a zinc-rich specification, the SSPC will welcome comments on the use of this "in preparation" version.

A.3 Available Specifications: A limited number of public specifications are presently available. MIL-P-23236, for fuel and ballast tanks, is a performance specification requiring a lengthy succession of laboratory tests for qualification, followed by an 18-month field

test. It is not limited to zinc-rich paints but also covers other classes of paint systems representing urethanes, epoxies and coal tar epoxies. The acceptable zinc-rich types are limited to inorganics and test conditions are confined to immersion. Both self-cured and post cured products are on the qualified product list.

Another Government specification, MIL-P-26915A, is written in such a way that materials having a relatively low zinc content (70 to 80% of total solids) will qualify; the lower values are usually insufficient for true sacrificial protection. This specification provides for several types of accelerated weathering and for an electrical resistance measurement. It does not require any particular vehicle, either organic or inorganic as long as it is "suitable for the intended purpose." Although the MIL-P-26915 specification requires the Type II (high purity), grade zinc dust, the less expensive Type I (standard) grade zinc dust formulas are suggested for all applications except on interiors of potable (drinking) water containers.

The third Government specification, MIL-P-21035, also specifies no particular vehicle, but does require a higher minimum zinc content (94% pigment x 97.5% zinc). It also requires a salt spray durability test. The Type I, regular quality zinc dust is specified, but it is recommended that the Type II (high purity), grade zinc dust be used for potable (drinking) water containers.

Other current zinc-rich specifications include MIL-P-46105, "Weld Through Zinc Rich" 25 March 1966 (U.S. Army Materiel Command), and Canadian Specifications 1-GP-171, "Coatings, Inorganic Zinc" and 1-GP-181, "Coating Zinc-Rich, Organic Ready-Mix."

TT-P-001046 (GSA-FSS) covers specifically a chlorinated rubber one-package ready mix zinc-rich with more than 88% zinc content by weight in the dry film. It is for renewal of galvanize, and primer over steel and galvanize.

MIL-P-38336 (USAF) covers self-curing inorganic zinc-riches, of types thinnable with water, alcohol, or ethylene glycol monoethyl ether (cellosolve).

California Highway Department Specification 66-G-55 is limited to 1) a lithium silicate and 2) an ethyl silicate, together with their control and use.

A.4 Paint prepared in accordance with this specification does not necessarily comply with Section K, Rule 66, Los Angeles County Air Pollution Control District or other air pollution control requirements.

If the formulation of a paint product is changed, in the solvent portion only with no change in the rest of the formulation, and the manufacturer can certify that when tested according to ASTM-D-822-60 (Accelerated Weathering) and for tensile strength and elongation by an Instron or similar tester, the original formulation and the proposed substitute give essentially the same results, he is justified then in certifying, pending the completion of service tests, that the substitution of one solvent for another has made no change in the service life of the material.

FORM G-90 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
July 21, 1972

To: Leonard I. Lindas
Ass't Attorney General
Highway Building

SUBJECT: East & West Fremont
Contracts 7310, 7311 and 7214
Zinc Primer

In regard to our conversation of this morning, listed below are some of the questions we might ask Mr. Saroyan. These are mainly related to things that happened on the project.

1. Does rust "stain" which has been deposited from an unpainted area such as the top flange have a detrimental effect on the zinc primer and/or the finish coat?

2. The longitudinal girders on Unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Paint Used	-	Enjay Rust-Ban 193 with Post Cure
Type Const.	-	Longitudinal Trapezoidal Girders
Quantity	-	500 Tons with 60,000 sq. ft. of surface area
Painted	-	January 1971
Shipped	-	January and February 1971
Checked	-	Paint thickness checks made in late March 1971
Gage	-	Used Micro-Metrics Tooke gage
No. Readings	-	Approximately 500 readings spaced throughout unit
Paint Thickness	-	The interior of the box averaged out about 1 mil. The exterior about 2 mils.
Rust	-	Numerous areas up to 4' in diameter showed discoloration from "pinhole" rusting in addition to the stain from the top flange.

We used this Unit as an example not because it was the worst, but because we had many readings, taken a relatively short time after painting.

3. The structural steel in Unit WE-1 of the West Fremont, which was primed with rust-ban 191 and "self cured" was still in good condition after 17 months of exposure. Please explain, after considering the following factors:

Paint Used	-	Enjay Rust-Ban 191, self cured.
Type Const.	-	Trapezoidal Girders & Box Beams
Quantity	-	600 tons with 70,000 sq. ft. of surface area
Painted	-	July 1970
Checked	-	Nov - Dec 1971
Paint Thickness	-	Apparent loss during the above period of 0.8 mils.
Rust	-	A few isolated spots of pinhole rusting

4. According to surveys by the Resident Engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted in San Francisco with Mobil Zinc 1, self cured and has been stored in Portland since the fall of 1970 with a loss of approximately ½ mil. The Resident Engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

5. We have been told that the distance between the paint gun and the steel surface is very critical with inorganic zinc primers. Would you comment on this.

6. We would appreciate any comments you might have in regard to selection of a thickness gage for this type of work.

Charles Lobaugh

CHARLES LOBAUGH
Assistant Resident Engineer

CL:cw
cc: Ed Hardt
Walter Hart
John Howard
R. O. Cunningham

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DEC 19 1972
FOR FILING

cc- Walt Hart
Br. Dept
12-12-72

copy to Jenkins
11-22-72
with excerpts from
Saroyan's Report

12-13-72.

FREMONT PAINTING

7311

Comments On The 10-5-72 Letter From Saroyan

NOTED
A. E. JOHNSON

1 - Yes - This will also help avoid bubbles (air pockets).

2 - We cannot use Red Lead after January 1, 1973 (Environmental Problems).

3 - We have had some adhesion problems, but not in sheets.

4 - Note page 2, all commercial test panels would be a failure as far as field use is concerned, and we know that we have to have a suitable anchor pattern for adhesion (the paper by Mr. Saroyan is duly noted).

5 - We would normally follow all points but No. 5. The other 4 points are normal paint practice with this type paint, If No. 4 is the manufacturers recommendation.

6 - Yes - This is the way we painted the last trusses at Fentron, as painting a car with laquer, fine spray thin coats made a smooth job with very little over spray (what we had could be easily removed).

7 - One-half to 1 mil per year under direct and continuous water exposure! (How much is considered direct exposure?)

8 - This information is in any book on inorganic paint but does not answer the question. This is only what can happen. No. 7 more closely answers the question if we remember that some of the materials were probably never, or seldom, in contact with much moisture (surely not enough to wash away the zinc sulphate salts which may have formed and if left would tend to afford some protection or retarding of further deterioration.

MORE

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DEC 13 1972
OFFICE OF
A. E. JOHNSON

9 - Note 5 and 6. If we can apply no more than 1 mil dry for good adhesion, then why 2-3 mils here? Is 80 K.U. thin enough to apply 1 mil?

10 - Note 7. One-half to 1 mil per year if exposure to moisture is continuous. Some steel was protected most of the time. Even under the worst conditions listed, if we had the required 3 mils minimum, it would take from 3 to 6 years for rust to break out. This is <u>if</u> the paint was applied properly and the second reaction, <u>B</u>, was allowed to happen (3 mils minimum paint film over the peaks of the profile).

11.- A scientific statement - some of the "lucky" areas are on the same piece and under the same conditions as the "unlucky" area next to it. I think the "lucky" areas were the ones that had an honest coat of primer applied over a good clean anchor pattern.

12 - Question: Would the residues from the curing agent be gone by the time 2-1/2 to 3 mils of primer deteriorates? We had freckling through, or in, the film with no visible disturbance of the applied paint film or curing agent residue.

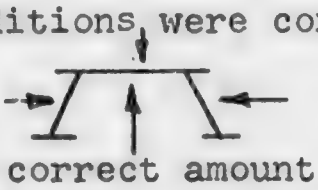
13 - I don't see where this has any bearing on the question. This deals with unpainted steel with remnents of sand in the valleys of the deeper profile which could attract moisture, etc. We are dealing here with a paint film which supposedly covers the profile completely. Undoubtedly, most of our steel had shattered grit or shot materials left in the valleys at the time of painting.

MORE

14 - Was this the case? Agitated?

15 - "Sacrificial" or "cathodic" protection may be cause for some loss of zinc as we had large areas of rust stains. Also, if the paint film had residues or areas where the metal abrasives got into the wet film, there would be some loss.

16 - In the Portland area, at a 50° to 70° temperature range, we have probably averaged 2-1/2 mil dry thickness per coat with carbozinc 11. This is not with artificially controlled conditions.

17 - I don't think the conditions were controlled as stated! If the beams were painted as  then with one coat, 1 and 2 mils dry would be the correct amount of film thickness to expect. One mil painting up and inside, and two outside, with a more porous coat inside.

18 - This was not the case. It was more like paint distribution failure which would include porosity in the paint film from improper application.

19 - A large percent of the paint was not subjected to water attack except as humidity, so there was a minimum washing action. The residues of the curing agent were still on the film which indicates that the beams had not been subjected to a washing action during shipment or storage. The measurements taken by Ed Rief and Bill Bangert at intervals of several months using the Banana, Tooke, and Elcometer Gauges indicated no recordable loss of film thickness.

MORE

20 - See 12 and 13.

21 - It is our opinion that the major factor was in application, not atmosphere; but our inspection agency at Conran's plant accepted the paint.

22 - The problem would not have been eliminated by a seal or top coat, only delayed or hidden, as we would still have less protection than we were paying for.

Ed J. Rief
Dist. Insp. Engr.

EJR:ljp

B. Question

Generally, comment on the advisability of:

1. Putting vinyl directly over zinc.

Answer

Before applying vinyl over the inorganic zinc coating, the surface must be free of any white deposits resulting particularly from post cure agents. The white deposits should be removed by high pressure fresh water rinse. Mechanical scrubbing should also be used if necessary. (1)

For inorganic zinc coatings that have been approved under MIL-P-23236 or under Naval Ships Technical Manual, Chapter 9190, and properly washed of the white deposits, a thin coat, maximum 1 mil dry film, of red lead vinyl, Formula #119 (MIL - P - 15929) is applied as a tie coat. (2)

Although the above practice has resulted in some satisfactory applications, where #119 has served as a tie coat, promoting good adhesion between the inorganic zinc primer and the topcoat or finish coat of vinyl, there have been some classical failures. Vast sheets of vinyl have peeled off the inorganic zinc primer. (3)

An analysis of the conditions that promote good adhesion and those that induce and cause poor adhesion and peeling, when #119 is used as the tie coat, have been studied microscopically. The attached three color slides (photomicrographs) show the surface contour or profile of cured inorganic zinc coatings. The surface of Rust-Ban 191 as shown in the slide, is only slightly rough. The slide for Rust-Ban 190 shows a rather smooth surface. In contrast, the profile for the experimental B-3 inorganic zinc coating is very rough and porous. (4)

Loss of adhesion of topcoats using vinyl #119 as a tie coat can be explained by identifying the surface profile of the inorganic zinc. If the surface is relatively smooth, adhesion must be derived from chemical bonding. Hence, with a tie coat such as #119, there is insufficient chemical adhesion. If the #119 is applied too thick, there develops a coating with high cohesive strength and in incidents of stress (thermal shock, etc.) is prone to exhibit poor adhesive strength. Also, if the #119 is applied thin, perhaps necessitating the addition of extra solvent, penetration of the #119 into the porous inorganic zinc can occur. Here, besides being functional as a tie-coat, the thinned #119 can serve as a seal coat. Incomplete contrast, when the inorganic zinc profile is rough, the surface per unit area is increased considerably and mechanical adhesion is promoted. This is a direct corollary to improving adhesion by abrasive blasting a surface.

The following experiments were conducted in regards to surface profile of inorganic zinc coatings top coated with vinyl #119 and immersed in brackish water for 3 months*:

*"Inorganic Zinc Coatings in the U. S. Navy" by John R. Saroyan, presented at the National Association of Corrosion Engineers, Western Region Conference, Phoenix, Arizona, 28 October 1964.

B. Question

Generally, comment on the advisability of:

2. Using 5 mils of hi-build vinyl in one coat (viscosity over 125 KU) (6)

Answer

The disguise of a single thick coat versus multiple coats as being more economical has been the theme of recent "sales pitches" as a cost-reduction devise through labor savings. This is still controversial matter now and in some governmental circles (Navy) such a criterion cannot be used when bidding on paints. Only what is in the container and not the way it is applied or any other alleged cost savings can be reflected in the bid price.

As discussed in the previous question, B-1, to obtain good adhesion of vinyl over inorganic zinc, a thin coat, a mil or less dry film, must be applied.

From attachment #8, under multiple coats, the following additional criteria are discussed:

1. Multiple coats, of varying colors, should be used to obtain complete, uniform coverage.

2. For coatings that contain solvent, multiple thin coats rather than fewer thicker coats permit the maximum release of solvent.

Summary

Generally, using 5 mils of hi-build vinyl in one coat on inorganic zinc is not advised. Loss of adhesion can result. Also, there can be uneven varying applications with runs and sags or orange peel roughness. Y

6.5 to 10.0 pH

Less than 0.4 neutralization number

Less than 300 PPM hydrogen sulfide content. (Hydrogen sulfide, like SO_2, will also react with zinc.)

Summary

It is apparent, from the above information, that a content of SO_2 in the atmosphere can quickly dissolve zinc in the inorganic zinc coating. The sulfurous acid, oxidized to sulfuric, reacts to form zinc sulfate. With condensations of moisture and rains, the very soluble zinc sulfate salts wash away, exposing new layers of inorganic zinc coating for SO_2 attack. Since the coating (inorganic zinc) is 85% by weight zinc, the film is also destroyed as the SO_2 "eats" away at the zinc. Also the SO_2 can react with lithium silicate or any of the lithium compounds, again forming soluble sulfates.

D. Question

Your comments on an acceptable system. Is the following system sufficient?

Primer - Inorganic zinc - ethyl silicate (3 mils)
Stripe coat - Organic zinc (epoxy)

Vinyl wash primer (#117)
Vinyl Hi-build 80ku (3 mils) first coat
Vinyl Hi-build 80ku (3 mils) second coat

Answer

The above coating system appears to be somewhat complicated in respect to the so-called "stripe-coat" followed by the wash primer, #117.

A complete system which is quite classical is the following:

1 - Primer - inorganic zinc, ethyl silicate
2 - Vinyl wash primer, #117
3 - Vinyl hi-build first coat
4 - Vinyl hi-build second coat

Returning to the "stripe coat", organic zinc epoxy, there seems to be a redundancy. It is known to the art that zinc rich primers may be of the inorganic binder type or organic binder type and mixtures (some organic binder in the inorganic) these latter hybrids can contain polyvinylbutyral, for example, in with the ethyl silicate binder, using alcohol as the common solvent.

It doesn't appear necessary to apply an organic zinc epoxy over an inorganic zinc (ethyl silicate). Obviously, "anything can be done," but the logic of the coating system proposed is not self-evident. It would be more conventional to use instead a "normal" epoxy coating over the zinc-ethyl silicate.

Summary

The following coating systems are derived from the 5-coat system reviewed and proposed above; these systems are recommended instead:

(9)

	Dry Film
(A) Inorganic zinc-ethyl silicate	3 mils
Vinyl wash primer #117	0.5 - 0.75 mils
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils
(B) Inorganic zinc-ethyl silicate	3 mils
Epoxy primer - thinned, Mil-P-23236 or Navy 9190. Limited cure time so as to receive vinyl hi-build	1 mil (Max)
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils

E. Question

Is Portland, Oregon's winter atmosphere deleterious to a water based inorganic zinc primer without a seal coat?

Answer

As previously reviewed under Question A-6 and A-9, for Rust-ban 191 (and 193) to cure the lithium silicate binder must be insolublized. In the atmosphere, with some humidity, the following reaction takes place:

a. Li_2SiO_3 + $2H_2O$ = $2LiOH$ + H_2SiO_3

Li_2SiO_3	$2H_2O$	$2LiOH$	H_2SiO_3
Lithium Silicate	Water	Lithium Hydroxide	Silicic acid

Then for curing to take place, the silicic acid has to dehydrate as indicated below:

b. $H_2SiO_3 \xrightarrow{\text{Dehydration}} H_2O + SiO_2$

SiO_2: Silicon Dioxide or Silicic Acid Anhydride

This over-simplification is not intended to detail the other complicated reactions that take place to form the complex iron-zinc silicate.

If the second reaction (b) or others which form the insoluble complex silicates, is not possible, then water soluble ingredients such as lithium silicate, lithium hydroxide, etc. can easily be washed away by rain or other condensation.

Besides the moisture which can be deleterious to such inorganic water base zinc coatings, there is the aggressive sulfur dioxide content of the winter atmosphere. The following SO_2 content was recorded in Portland, Oregon during Jan.-Mar. 1971:

	SO_2
January 1971	78.6 $\mu g/m^3$
February 1971	60 $\mu g/m^3$
March 1971	48.6 $\mu g/m^3$

As discussed in Question "C" above, these amounts of SO_2 along with moisture can be very deleterious to the inorganic zinc coating.

Summary

(10)

With the winter environment at Portland, Oregon identified as to high moisture, rain and SO_2 content, any inorganic water based zinc primer without a seal (sealer) or top coat will show definite increase in rate of diminishing of the coating film thickness, with rust finally breaking out in the damaged or deteriorated areas.

Also, it has to be postulated that the reason a certain member or area looks good, is because it was "lucky" since the aggressive environment didn't get to it yet. (11)

G. Question

If your answer to "F." is yes, what evidence should there have been on the girders to indicate a residue.

(12)

Answer

The soluble sulfates normally would not form dense or ample white deposits like those formed when curing agents are applied over the Rust-ban inorganic zinc primer. Any surface sulfate would probably be washed away by rain or/other condensations. Probably, fresh water washes and recovery of several of such washes would permit chemical identity of the presence of sulfate.

H. Question

Would use of small test panels be indicative of reaction of paint on large panels?

Answer

In my studies relating to surface profiles of abrasive blasted surfaces and corrosion, the following observations have been made:

A small test panel 4" x 6" x 1/8", was divided into four equal areas and sandblasted with different sieve size abrasives such that four profiles were obtained. Also these studies included the occlusion of shattered sand within the valleys and the effect of this on corrosion.

The prepared panel was layed flat on a laboratory work bench and subjected just to the laboratory environment. In about two days, corrosion was observed on the panel. The sequence of corrosion and amount was directly proportional to the roughness of the surface, thus exposing more surface per unit area, and the amount of occluded sand particles in the depressions.

(13)

It is thus demonstrated, that even on the same panel, the environment can act differently on the various areas. It follows, two panels of identical size with some surface differences will perform differently when subjected to an exposure or environment.

A classical example of my experience is the varying performances of two identical 10" x 12" x 1/8" mild steel panels, spray painted identically, with the same continuing spray passes, and immersed in sea water side by side performed differently.

Now going to two size panels, the variations can be further amplified. A test panel (small) versus a steel girder obviously would present a case of two distinctly different surfaces.

In the first instance, the mass of the two surfaces is vastly different. This means the heat capacity of the two would vary greatly. The panel would heat up and cool off rapidly. The steel girder would heat and cool slowly. A pool of water, for example, would evaporate at different rates from the panel and girder. This would result from the varying heat contents and the varying air currents around the two surfaces.

Because of varying heat contents, varying rates of heating and cooling, and varying masses, rates of expansion and contraction would be different of the two surfaces. Coatings on these surfaces would experience different stresses under the various environmental actions.

Summary

Small test panels can at best be compared to each other and more exactly to each other if they are the same size. Such panel tests are good for screening purposes. The performances of massive girders and small panels normally would not be compared directly.

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Summary

Small test panels can at best be compared to each other and more exactly to each other if they are the same size. Such panel tests are good for screening purposes. The performances of massive girders and small panels normally would not be compared directly.

1. Question

What effect would result from increasing the zinc content to 85%.

Answer

The specification, for the Fremont Bridge, covering the properties of the mixed inorganic zinc silicate primer "already" requires a minimum zinc pigment content of not less than eighty-five (85%) percent, by weight of the total non-volatile content.

(14)

Under Question A, previously answered, the question on insufficient pot agitation may be responsive to this question. The resulting applied inorganic zinc coating would be quite variable. The zinc content, because of poor agitation and settling of the zinc pigment, would vary. The first sprayed material would be "richer" - more than 85% - in zinc and the subsequent applied coating would contain less zinc. The properties would vary accordingly. The coating with excessive zinc would be dry, porous and irregular - the low zinc would show up as a glossy, flooded, poorly adhering or even layering type of deficiency.

The zinc ions (ZN^{++}) then form the various zinc salts and products: sulfates, phosphates, carbonates, etc. With rain and other condensations, the salts can dissolve (if soluble in water) and wash away or be washed by mechanical wearing action of the rain. In this way, new zinc is exposed for a repeat of the above sacrificial reactions. The free iron formed from the net reaction of (B) can rust by the atmosphere and start anew the whole deterioration process of zinc (and the lithium silicate end products). (13)

1. Question

The longitudinal girders on unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Answer

According to available information during the application of Rust-ban 193 and 195 cure solution, the temperature in the Canron plant was stated as being held between 70-80°F with a relative humidity of 30-50%. The film thicknesses were checked by wet film measurements, (I assume dry film measurements at those measured areas was also checked) and were determined to be at least 3 mils. This then appears to eliminate a point of consideration which is contained in Attachment #14.

On page 2, 3rd paragraph, the following is stated: (Following this from above paragraph: "it (#193) can easily be applied by spray at temperatures ranging from 40°F to 140°F.)

"At the upper temperature levels, Rust-ban 193 can be applied to a dry film thickness of 3-5 mils in one coat. At lower temperature levels, it may become necessary to apply two coats of Rust-ban 193 in order to obtain 4 dry mils..." (16)

Apparently, from time above, at low temperatures only a maximum of 2 dry mils of 193 can be obtained per coat. This was not the situation at the Canron plant where it has been stated the temperature was held at 70-80°F.

The coating thicknesses taken 90 days after the application of Rust-ban 193 (+195 cure solution) showed 1 mil average on the interior surfaces of the box beams and 2 mils for exterior surfaces. This cannot be explained on the basis of deficiency in the application process since all factors were controlled, inspected and certified. There remains only the uncontrolable environmental factors at the Fremont Bridge site. (17)

The 4' diameter areas of pinhole rusting would be the normal rusting pattern. Penetration and deterioration would follow a droplet distribution coinciding with moisture droplet distribution on a surface (horizontal). Vertical surfaces would display flow pattern with gravity plus droplet corrosion pattern. All rusting that appears would coincide with water droplet distribution and porosity in the Rust-ban inorganic zinc coating. (18)

The girders were shipped Jan-Feb. 1971 and film thicknesses taken in March 1971. A review of the environmental factors during this period show the following:

Period	Sulfur Dioxide $\mu g/m^3$	Water Equivalent
Jan 1971	78.6	7.09
Feb 1971	60.0	3.36
Mar 1971	48.6	4.87

The girders were subjected immediately to high SO_2 and water impact. With no time to build-up some of the normal protective salts, such as normal carbonates, to seal some of the pores, accelerated atmospheric SO_2 and water attack too place. Such attack could greatly dimish film thickness, as observed. (19)

N. Question

According to surveys by the resident engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted in San Francisco with Mobil Zinc 1, self-cured, and has been stored in Portland since the fall of 1970 with a loss of approximately 1/2 mil. The resident engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

Answer:

In the application of any protective coating, there is always the possibility of improper coating. However, I cannot accept, without some facts to back it up, that the rusty areas of the Mobil Zinc #1 were due merely to improper application. As we have discussed, there are aggressive environmental factors at work at the Portland Fremont Bridge area. I place more importance on the sequence of environmental events that the superstructure steel was subjected to (I have to assume this steel was checked for conformance - proper application and proper film thickness - why shouldn't it have been checked?)

The San Francisco area probably had less aggressive atmospheric factors than the Portland area. Again, because of the success of the self-cure action of Mobil Zinc #1, the environment was conducive to the self-cure and was so accepted. Had this not been the case, some means of inducing cure may have been provided.

It may be repetitious to say, once the inorganic zinc coating has cured and has demonstrated ability to self-cure under those conditions, it probably has more resistance to aggressive environmental action. It must also be considered that aggressive attack is not uniform over this girder surface.

Q. Question

Your opinion of the cause of the loss of the inorganic zinc primer.

Answer

All of the items discussed in Question A through P certainly have bearing on the problem of the loss of inorganic zinc film thickness (and corrosion appearing) at the Fremont Bridge site. Obviously if the coating materials are not properly mixed, properly applied, properly cured, its performance will diminish. Because of guidance and inspection points setup in coating these steel parts, I don't think the major factor of the failure lies in the above type of deficiency or error. I believe there is a fundamental cause for the failure and that is the aggressive atmosphere at the bridge site. These aggressive factors were listed as moisture - rain and other condensations - and SO_2. Nothing in Questions B through P has been pointed to the cement plants which put out very alkaline dust particles. These too can be aggressive to the inorganic zinc coating. (21)

Summary

The entire problem of the failure would have definitely been eliminated if the Rust-ban inorganic zinc had some sort of organic barrier or topcoat, (sealer, tie or whatever) applied over it prior to being subjected to the Fremont Bridge site. (22)

# #

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FILES
7311

NOTED
A. E. JOHNSON

Box 300
Salem OR 97308

December 11, 1972

10-35.6

H. A. Schell, Division Bridge Engineer
Salem, Oregon

Original Signed by
H. A. Schell
Division Bridge Engr.

RECEIVED
DEC 14 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Oregon Projects I-405-8(20)301
I-405-8(22)304
East and West Fremont Interchanges
Painting Claims

On December 11, 1972, a meeting was held in A. E. Johnson's office to discuss the impending claim for zinc painting on the interchange structures. Those attending the meeting were: A. E. Johnson, Ed Hardt, L. I. Lindas, Chuck Lobaugh, Bob Shotwell, John Howard, and the writer. The meeting was basically to indicate the position of the State and if they should go to court in a claim between Canron (fabricators) and the contractors (Anderson-Hannen & Drake-Willamette).

The State's Legal Counsel, Mr. Lindas, said that the case is not very clear and that there are gray areas implicating the State in part of this claim. Basically these areas have to do with the inspection of the painting process in Vancouver, B. C. by Pittsburgh Testing Laboratories (much controversial steel was accepted for shipment before State inspectors in Portland objected to obvious deficiencies).

Mr. Lindas asked if we would approve a settlement with the contractor for payment to Canron. The two contractors are holding approximately $2 million in payment to the fabricator and it appears Canron must go to court in order to get this money. The supportable maximum basis for settlement according to State figures is as follows:

Project	State	Contractor
West Fremont	$90,000	$130,000
East Fremont	167,000	230,000

It appears that the settlement would be considerably below the quoted figures. I indicated that our file documentation does not adequately support such a settlement unless new information is presented. I was given a copy titled "The Analysis of Primer Rust Problem, Canron Ltd." which was prepared by the fabricator Canron to support their claim. I indicated to the State that I will review this report and discuss the problem with my superiors and advise the State as to our position.

cst cc: OSHD (A E Johnson)

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7311

December 7, 1972

Mr. R. B. Hardin, Superintendent
Union Pacific Railroad Company
2525 North Larrabee Avenue
Portland, Oregon 97227

Contract 7311

Dear Sir:

All work under Contract No. 7311,
East Fremont Interchange, Unit "B"
Section of the Stadium Freeway
Highway in Multnomah County, was
completed November 28, 1972.

In accordance with the agreement with your company, final billing for flagging and other protective services on this project is to be submitted on or before March 28, 1973.

Very truly yours,

George H. Baldwin
Administrator of Highways

by

L. H. Young
Programing Engineer

VG:ed

cc: Jess Jones
T. W. Litchfield

FILED
DEC 1972
FOR FILING

RECEIVED
STATE HWY ENGR
DEC 13 '72
REFER TO
FOR
Info | Ass | Ap | Sig | F | Ret | Co

OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE December 6, 1972

TO ~~C. L. Green, Division Engineer~~
R. E. Simpson, Division Engineer
Federal Highway Administration

Federal-aid Project
No. I-405-8(23)204

FROM

L. H. Young
Programing Engineer

NOTED
A. E. JOHNSON

Conf Bridge 12-13-72

SUBJECT Request Contract Acceptance

Contract 7311 Work Completed November 29, 1972

Project East Fremont Interchange, Unit "B"

Highway Stadium Freeway

County Multnomah

We request that your office return a signed copy of this letter indicating acceptance or list conditions which would prevent your final acceptance of the contract work.

Acceptance Date November 29, 1972

Conditions not acceptable: A final inspection was made on 11/29/72 and the project was considered acceptable upon completion of the few minor details discussed at that time. FHWA final acceptance will be withheld pending revision of signing as discussed with Mr. George of your office.

for G. L. Green
Division Engineer

E. J. Walsh

L. H. Young

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7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
November 13, 1972

SUBJECT: East and West Fremont Approaches
Canron's

To: Mr. A. E. Johnson
Asst. Highway Engineer
Highway Office Building

NOTED
A. E. JOHNSON

Attached are my comments of Canron's "Book" of January 1972 which presents their views on the poor inorganic zinc primer job we received on the East and West Fremont approaches. I believe my comments are self-explanatory but if you should need any clarification or further information, please call me.

JOHN C. JENKINS
Engineer of Materials & Research

By
J. E. CHIDSEY
Structural Quality Control Engineer

Attachment

JEC:eb

cc: Walt Hart

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NOV 14 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

P. 12 - Last Paragraph

There were 11 different primers which met the requirements of (1), (2), (3), (4), (5), (6), (7) by virtue of the fact they were listed on the Q PC 23236 List. Since all of these products had undergone extensive testing including some 18+ months exposure tests, I feel that they could all qualify under (8).

(9) I know of six of the 11 which make the vinyl finish. The other five I'm not certain, but feel that they could <u>furnish</u> a high build vinyl compatable to their I.O. Zn.

(10) All manufacturers can furnish a technical rep. of the quality that we saw from ENJAY.

(11) The materials tests were not difficult to pass.

Mobil Zinc 1 is used on Fremont which has the same specs. Amercote products were qualified. Amercotes representative went over the Specs before the contract was let - If there had been an area they could not meet, he would have screamed loud and long. I had conversation with Lewis Hayes of Prufcoat, Grow Chemical, who said that he submitted a bid for the material.

P. 16 - (h)

The modification of the profile was done to accommodate Canron's blasting procedures. They were having difficulty getting both profile and cleanliness. Fought in Tigard met the spec w/o problem. Murphy-Pacific meet the same spec w/o problem.

P. 18 - Top Paragraph

The change to RB193 was due primarily to the fact that Canron was having difficulty obtaining both ancho-profile and cleanliness required. To get the cleanliness the profile was too low. Because of this, ENJAY suggested the use of RB193 which required a lesser profile.

P. 25 - 3.4.14

The primer can be thinned, using the vehicle supplied as the liquid component.

P. 26-27 - 3.5.1.2

While I was never in the paint shop in Vancouver it is my understanding that this bay was not heated and the environment controlled as stated.

P. 42 - Top of Page

Emphasis added is w/o merit.
We realize that zinc is a sacraficial coating. It is in fact a cathodic coating, but as long as the film is unbroken, the amount of sacraficial action is minimal.

P. 44

Canron makes no claims as to having experience in the application of Inorganic Zinc Primers. If this is the case, which I understand is true, they would have to be given quite detailed recomendations and procedures. In all of the correspondence and discussion I saw and heard from Canron, I never did hear any reference made to <u>their</u> past experience with this type of product. Detailed instructions and procedures were given as much for the benefit of the fabricator as for the State. If these instructions and procedures were unreasonable, why was no objection made to them <u>before</u> the contract was let? Prior to the contract award, everyone seemed to feel they were a good set of specs.

P. 54 - Last Sentence

They state an emphasis on <u>continuing</u> sacrificial action of zinc-rich primers, but offer no figures as to what this rate is. Harlan feels that the 1/2 mil loss in the 1st six months is due to curing action and not sacraficial action. Using their reasoning, even galvanized surfaces of 203/ft.^{2} would be gone in less then 7 1/2 years. Total.

P. 56

Comment that the members were stored next to a cement plant. The only cement <u>plant</u> is in Lake Oswego. There is a Permanente Storage area on the East side of the river, but the members were not stored near it.

Comment is made that "the State did not obtain from the manufacturer any document instances of use of its products under conditions comparable to those existing on this project." Portland's weather and atmospheric conditions are quite unique, so comparable conditions would be difficult to find. The San Francisco Bay Area is somewhat similar and RB191 was used on the San Mateo-Howard Bridge across the South end of the bay. The Bay Area has a higher air polution problem than does the Portland area.

P. 57

CAN TEST is doing some unwarranted extrapolation of data. They are taking a 1/2 mil loss in the first four months and extrapolating it to read 1.2 units loss in one year. This is not feasible.

P. 64 Wet gages are not reliable in that they measure the thickness of the liquid applied. If the Zinc settled out, there would be insufficient dry film.

P. 67 - Middle Paragraph

No documentation of this fact was made until after the paint problem was brought out into the open.

From comments made, CANRON does much to attempt to relieve PTL from any charge that the inspection was poor. After the problem was discovered, the remaining steel was shipped to the jobsite and to the best of my knowledge, there were no problems with rusty, primed steel.

Not having at this time, a copy of the Navy report cited, I can make no comment on this phase of the report.

I still ask the same question: If the insides of the girders had 3+ mils of IO Zinc applied and this material was eroded or sacraficed as CANRON claims, what became of the products of this erosion and sacraficial action? With the toss of from 1 1/2 to 3 mils of primer over the large surface involved, there would be a large amount of residue in the bottoms of the girders. None of this residue has ever been apparent to me or anyone else who has examined these girders.

Also, the rusting problem was by far more prevalent on the inside than the outside of the girders. I would like an explanation of this phenomenon.

OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

NOTED
A. E. JOHNSON

November 2, 1972

Mr. Glen L. Green
Division Engineer
Federal Highway Administration
477 Cottage St. N. E.
Salem, Oregon 97308

RECEIVED
NOV 3 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Dear Mr. Green:

East and West Fremont Intch.
Inorganic Zinc Paint System
East and West Fremont Intch. Sections
Contracts 7214, 7310, and 7311

In July of this year the legal counsel for Canron and the Highway Division jointly engaged the services of Mr. John Saroyan to comment on problems with the inorganic zinc primer paint system on the Fremont Interchanges. Mr. Saroyan was requested to comment on a series of paint related questions. A copy of the questions posed and Mr. Saroyan's answers is enclosed. This material is being sent to you for your review and comment.

Mr. Saroyan is a civilian employee of the U. S. Navy and an acknowledged expert on zinc paint and its use. His opinions must be considered to have significant weight in any discussion of this paint problem.

A meeting between the members of our staffs to discuss future action on this subject is in order. Subject to your concurrence the meeting is tentatively scheduled for November 14 at 1:30 p.m. in the Bridge Office of the Highway Division.

Additional prints of the pictures referred to in Mr. Saroyan's "Comments on Fremont Bridge Primer Problem Study of Color Photographs in Regards to Plates Section with Unusual Excess Salt Deposits" are not available. One set of prints is on file in the Bridge Office if you wish to view them.

Very truly yours,

George M. Baldwin
Administrator of Highways
By Walter J. Hart
Walter J. Hart
Bridge Engineer

WJH/ag
Attachs.
cc A. E. Johnson
L. I. Lindas
H. S. Coulter
R. Shotwell
J. Howard

7311

Tom
11-1-72

Did you advise the primes on east & west side of Fremont, NSR to pay Canron?

Canron has $2,000,000 due them from the primes for structural steel & Painting. The primes say you told them not to pay Canron Lindi

FORM G-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
October 27, 1972

METROPOLITAN ENGINEER
RECEIVED
OCT 30 1972
MS AME AME AME MDE MTE

SUBJECT: Zinc Primer Loss
West Fremont Interchange
Contract No. 7214

To: Mr. E. L. Hardt
Asst. Metro. Engineer
O F F I C E

We have read both of Mr. Saroyan's reports concerning loss of zinc primer and have the following comments based on our field observation.

Question:

A-1 Excessive Blast Profile- We do not consider this a significant factor. From PTL's reports Canron had difficulty getting a white blast and a 1½ mil profile. They requested and were permitted a ½ mil profile plus RB 193. On SE Unit 1 the web on one girder section was rusted from what appeared to be an excessive profile. This unit was primed before the change to RB 193 with RB 191. We do not have any other specific examples.

A2, 8, and 10 Insufficient atomization pressure, excessive pot pressure, spray gun too close. The orange or rippled surface typlified by these application problems was not noted on the girders.

A3, 7 and 11 Insufficient pot pressure, excessive atomization pressure, spray gun too far from surface. The soft porous dusty surface wasn't apparent by the time the girdersreached the job site. We believe there is an application problem in the stiffener areas. It was very common to find rust on the horizontal stiffener and the web immediately adjacent on the girder interiors. A soft surface that could be washed away by the rain would explain this problem.

A4 Inadequate Pot Agitation- The zinc primer throughout the project was found to have considerable variation in thickness with in a given area. We have made surveys using a 6 inch grid on a 5 ft. by 6ft. girder web section and found thicknesses varying from 3.0 mil to 1.0 mil. A variation 1.0 mil is more common and we believe is typical for the RB 193 areas. RB 191 would be less. We can remember surface texture differences described for inadequate agitation but do not have supporting records. The difference in the rate of sloughing off of the hi-zinc areas compared to the vehicle areas could explain some of the thickness difference.

A5 Excessive Pot Agitation- Mr. Saroyan describes a spotty surface resulting from this condition. He does not indicate the appearance after the curing solution is applied. We have several photographs showing the spotty surface; however, this may be due to the acid cure.

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A6 Premature exposure to rain. This could be a factor but we do not have any information to support it.

A9 The evidence and effect of phosphoric acid cure spread at different rates. We are of the opinion that excessive acid cure is a factor in the zinc loss. The excessive white salts were very much in evidence on the interior surfaces of the ring girder sections. The acid cure is of special interest when considered with the possibility of inadequate pot agitation. The report points out the acid reacts with the lithium silicate vehicle; when this is neutralized it reacts with the zinc. Assuming the recommended spreading rate is used in the areas lacking in vehicle there would be excess acid to react with the zinc. With the already soft porous surface we would imagine there would be a significant film loss. This would further explain the difference in film thickness.

In the second report questions B, D, V, N and P do not pretain to the loss of zinc or this job so no comment has been made.

Question:

C and E The solubility of zinc when exposed to the SO_2 in the Portland atmosphere. The trapezoidal shape of the longitudinal girders exposes the interior surfaces to rain and SO_2. The exterior is relatively sheltered. The interior surfaces on the ring beam sections are completely protected. Mr Saroyan says the zinc and SO_2 react and the zinc slowly"washes away" We do not understand how this is possible on areas protected from the rain.

F and G Evidence of residue in the girders from washing of soluble salts by the atmosphere. The explanation for areas exposed to the rain is adequate. It is difficult to understand why there would not be some residue on a protected area.

H Comparison of small test panels to large areas. Mr Saroyan makes some valid points on the difficulty of duplicating actual conditions with a test panel.

I Effect of increasing the zinc content to 85%. Not pertinent.

K The effect of rust stain deposited on the zinc primer surface. Our measurement of paint thickness on rust stained areas showed no significant difference from adjacent unstained areas.

L and M Explain loss of zinc on WS 1, East Fremont over a ninety day period. Explain good condition of zinc on WE Unit 1 after 17 month. In these discussions we do not believe adequate consideration was given to (1) RB 193 plus acid cure was used on first example and (2) RB 191 without acid cure was used in the second.

O Comment on distance between paint gun and steel. This was covered previously on question A10 and 11.

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Q. Mr. Saroyan's opinion of the cause of the zinc primer loss. We do not agree that the Portland weather was the major factor in the deterioration of the primer. In our opinion the zinc loss is explained by a combination of the following:

1. Application- Difficulty in properly applying zinc in corner areas and the possibility of improper pot agitation.

2. Acid cure on the RB 193- This is the major factor if one can be singled out. None of the girders primed with RB 193 were in as good condition as those painted with RB 191.

3. The Portland weather- The surfaces exposed to the rain showed greater film loss than the less exposed areas.

J. D. Howard

John D. Howard
Res. Br. Engr.

JDH:ads

cc: Mr. R. Shotwell
file

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REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 26, 1972

SUBJECT: John Saroyan's Report II
East & West Fremont Approaches

To: Walter Hart
Bridge Engineer
Salem

Your letter of October 5, transmitted the second installment of Mr. Saroyan's answers to questions posed relative to Fremont Interchange painting and requested our comments which follow.

Question B-1 and B-2 deal with (1) putting vinyl directly over zinc and (2) applying five mils of vinyl in one coat. This is an after-the-fact examination of the method of applying vinyl on the East and West Interchange projects. Other than hope that this vinyl does not fall off the steel, I find little to comment on these two answers except that since Saroyan recommends applying vinyl in multiple thin coats to allow the maximum solvent release, this would explain our problem of bubbling and pinholing with one coat of vinyl. Since much of the vinyl has not as yet been put on the Fremont Superstructure, perhaps we should investigate the adhesion of the Mobil vinyl to the zinc on the structure to determine if adhesion could be a problem.

Question B-3: no comment.

Question C. Saroyan goes through a chemical analysis to show what happens when the inorganic zinc is exposed to an atmosphere containing sulpher dioxide. The important point in respect to Portland's "corrosive atmosphere eating away the inorganic zinc" is the time involved. I am confused by Saroyan's answer to Question C with respect to the time for the chemical reaction because in the third from the last paragraph on page 2 he mentions the word slowly in connection with the washing action. Yet in his summary of this question, he uses the word quickly with respect to this process. I believe the time for the zinc to be eroded to the point of rusting is most critical. Enjay's recommendation for hydrogen sulphide content for Rust Ban 191 use is 300 parts per million. The sulpher dioxide concentration in the Portland atmosphere during the most critical period was 0.03 parts per million. Assuming the chemical reaction to the inorganic zinc of these two pollutents is on the same order and I would have to defer to a chemist for confirmation of this, it is hard to imagine how the low concentration of sulpher dioxide compared to that recommended for hydrogen sulphide by Enjay could completely break down the paint system in a matter of two or three months. I can only think that the answer lies in the fact that the inorganic zinc in Portland was not properly cured so that it could not withstand the attack of the sulpher dioxide.

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L. Linda S
10-30-72 dk

Question D refers to an acceptable paint system and since it is not particularly germane to the inorganic zinc problem in Portland, I have no comment.

Question E: Since I don't understand the chemistry involved in Saroyan's answer to this question, I cannot completely comment on it. However, it appears as though he is talking about what might happen to the inorganic zinc if curing hasn't taken place. If this is the case, then the question of whether or not the inorganic zinc applied in Vancouver, B.C. was properly cured would have to be taken into account when analyzing this answer.

Question F and G: No comment.

Question H: I have no comment on Saroyan's remarks with respect to small test panels. I have observed many test panels at the Bonneville Power Administration's laboratory in Vancouver, Washington. They would be a good source of information if some was desired on this question.

Question I and J: No comment.

Question K deals with the rust "stain" which has been noticed on parts of the Fremont girders. I don't believe that this stain played a significant part in the breakdown of the inorganic zinc because I was never able to correlate the presence of the stain with the rust breakout on the girders. Perhaps Resident Engineers' Shotwell and Howard can comment more thoroughly on the correlation between stain and rust breakthrough.

Question L: Saroyan is assuming that the paint application process in Vancouver, B.C. was not deficient since "all factors were controlled, inspected and certified". The only uncontrolled variable in the whole sequence then could only be the environment in Portland and, therefore, he concludes that this must be the cause of the problem. I cannot necessarily accept this assumption as I have mentioned in my analysis of Saroyan's first set of answers since there is a strong question in my mind with respect to the proper curing of the inorganic zinc in Vancouver.

Question M: The answer to this question is the key to my thinking that the degree of cure of the inorganic zinc is more crucial than the environment in Portland. Saroyan is saying here that once the zinc is properly cured that the Portland environment has no effect on it. Therefore, when the girders are affected by the environment, it follows that they were not properly cured. This goes back to the application of the curing acid in the plant in Vancouver and my comments contained in my answer to Saroyan's first set of questions with respect to acid cure.

Question N: The answer to this question confirms my thoughts as expressed under Question M--namely, that the cure is more important than the environment. Saroyan states "once the inorganic zinc coating has cured and has demonstrated ability to self cure under those conditions, it probably has more resistence to agressive environmental action". I believe he is saying in this answer that the Mobil zinc applied in San Francisco was properly cured so that the Portland environment has little or no effect on it.

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Question O: No comment.

Question P: We came to the same conclusion as Saroyan and we have equipped the field offices with the Elcometer gage. Incidentally, we had a session with Canron's paint consultant, CanTest, and calibrated our gages with theirs so that there would be no argument about paint thickness readings on the project.

Question Q: Saroyan says he believes the fundamental cause for the inorganic zinc paint failure is the aggressive atmosphere at the site. In previous answers he has shown how sulpher dioxide will react with the inorganic zinc and cause chemical breakdown. Chemically I am sure this is true. However, he has made no showing as to the time involved for the sulpher dioxide to breakdown three mils of properly cured inorganic zinc paint. He has shown in Question M that this aggressive atmosphere has no effect on properly cure zinc. Therefore, the key to the problem would seem to lie in whether or not the paint was properly cured rather than the environment in Portland.

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
R. E. Shotwell
R. O. Cunningham
John Howard
John Jenkins

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A - What would be the evidence & affect of:

1. Excessive blast profile?
2. Insufficient atomization pressure?
3. Insufficient pot pressure?
4. Inadequate agitation?
5. Excessive agitation?
6. Premature exposure to rain? (before 24 hours elapsed)
7. Excessive atomization pressure?
8. Excessive pot pressure?
9. A phosphoric Acid curing solution pH below 1.0 applied at 400 sq. ft. per gallon. 250 sq. ft. per gallon. 800 sq. ft. per gallon (See Transparencies)
10. The gun being held too close to steel?
11. The gun being held too far from steel?

B - Generally, comment on the advisability of:

1. Putting vinyl directly over zinc.
2. Using 5 mils of hi-build vinyl in one coat (viscosity over 125 KU)
3. Using a vinyl wash primer or some other seal coat.

C - Realizing that a phosphoric acid curing agent was used, and that the members were barged from Vancouver to Portland, how soluble would the zinc be when exposed to atmosphere containing 30-50 parts per billion SO_2?

D - Your comments on an acceptable system.
Is the following system sufficient?

Primer	- In organic Zinc - Ethyl Silicate	(3 mils)	
Stripe Coat -	Organic Zinc (Epoxy)		
	Vinyl Wash Primer (117)		
	Vinyl Hi-Build 80 KU	(3 mils)	(first coat)
	Vinyl Hi-Build 80 KU	(3 mils)	(second coat)

E - Is Portland, Oregon's, winter atmosphere deleterious to a water based inorganic zinc primer without a seal coat?

F - Should there have been a residue on the ~~members~~ steel girders painted from a washing of the soluable salts caused by the Portland winter atmosphere?

G - If your answer is yes, what evidence should there have been on the ~~members~~ girders to indicate a residue?

H - Would use of small test panels be indicative of reaction of paint on large steel panels?

I - What effect would result from increasing the zinc content to 85%?

J - Was a tie coat necessary after the application of the zinc primer?
Was a Seal Coat necessary after the application of the zinc primer?
Was a Wash Coat necessary after the application of the zinc primer?
Are the foregoing terms, or any two, synonymous in the trade?

K - Does rust "stain" which has been deposited from an unpainted area such as the top flange have a de[illegible]mental effect on the zinc pri[illegible]r and/or the finish coat?

L - The longitudinal girders on Unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Paint Used	- Enjay Rust-Ban 193 with Post Cure
Type Const.	- Longitudinal Trapezoidal Girders
Quantity	- 500 Tons with 60,000 sq. ft. of surface area
Painted	- January 1971
Shipped	- January and February 1971
Checked	- Paint thickness checks made in late March 1971
Gage	- Used Micro-Metrics Tooke gage
No. Readings	- Approximately 500 readings spaced throughout unit
Paint Thickness	- The interior of the box averaged out about 1 mil. The exterior about 2 mils.
Rust	- Numerous areas un to 4' in diameter showed discoloration from "pinhole" rusting in addition to the stain from the top flange.

(We used this Unit as an example not because it was the worst, but because we had many readings, taken a relatively short time after painting.)

M - The structural steel in Unit WE-1 of the West Fremont, which was primed with rust-ban 191 and "self cured" was still in good condition after 17 months of exposure. Please explain, after considering the following factors:

Paint Used	- Enjay Rust-Ban 191, self cured.
Type Const.	- Trapezoidal Girders & Box Beams
Quantity	- 600 tons with 70,000 sq. ft. of surface area
Painted	- July 1970
Checked	- November - December 1971
Paint Thickness	- Apparent loss during the above period of 0.8 mils.
Rust	- A few isolated spots of pinhole rusting

N - According to surveys by the Resident Engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted ... San Francisco with Mobil Zinc 1, self cured and has been stored in Portland since the fall of 1970 with a loss of approximately 1/2 mil. The Resident Engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

O - We have been told that the distance between the paint gun and the steel surface is very critical with inorganic zinc primers. Would you comment on this.

P - We would appreciate any comments you might have in regard to selection of a thickness gage for this type of work.

Q - Your opinion of the cause of the loss of the inorganic zinc primer.

NOTE: Please define "tie coat," "Seal Coat," "Wash Coat," referred to in question "J" above.

FORM 6-30 (REV. 10-60)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 24, 1972

SUBJECT: John Saroyan's Paint
Report No. 1

To: Walter Hart
Bridge Engineer
Salem

Attached you will find a copy of a letter dated October 19, from Bob Shotwell which is his review of John Saroyan's paint reports and of my comments on the first report. My thoughts as expressed in my September 26, letter to you that the cause of the zinc paint breakdown could very well be the application of too much acid cure at the Vancouver paint plant would seem to be confirmed by the comment in Mr. Shotwell's letter that the "rust patterns followed chalk white stains on the zinc where the post cure acid actually ran down the sides of beams".

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

Encs

cc: Robert Shotwell
John Howard w/attach.
R. O. Cunningham "
John Jenkins "

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Copy To Lindas 10-27-72 STHD

FORM E-20 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97227
October 19, 1972

SUBJECT: John Saroyan Paint Report
East Fremont Interchange

To:

Mr. H.S. Coulter
Metropolitan Engineer
5821 N.E. Glisan Street
Portland, Oregon 97213

Upon review of Mr. Saroyans report and Mr. Hardt's letter of September 26, 1972, I have the following comments.

Mr. Saroyans answers to Question A (parts 1-11) deals primarily with different aspects of the preparation of the steel & application details of zinc rich paint. As you know this work was not performed at the site. It is worth noting however that in Mr. Saroyans recap item b he states that a slight amount of white salt must be removed before top coating (when post cured). He goes on to say this can be accomplished by a minimal amount of washing. In his second report under question "B" he states the white deposits should be removed by high pressure wash. Mechanical scrubbing should also be used if necessary. This apparent inconsistency on a seemingly important point is confusing.

It should also be stressed that in many instances rust patterns followed chalk white stains on the zinc where the post cure acid actually ran down the sides of beams. Some beam sections were so overloaded with post cure acid as to be completely white and evident from 400' - 500'.

There is no doubt in my mind that these white beams which showed rust bloom were damaged by to much acid as indicated in Mr. Saroyan's Effect (1) 250 Sq.Ft.

Mr. Hardts letter of September 26, 1972, mentions beams on the East Fremont that had 2 coats of zinc primer & according to Canron Limited still were rusting.

The beams in question were the larger beams in Unit A. A special effort apparently was made by Canron to apply the proper paint thickness on these beams. The results were evident. Very little rusting was evident on these sections compared to the remainder of the job. These beams represent, in my opinion, the result of a tighting up of Quality Control by Canron in their Vancouver plant and indicate what the rest of the job could have looked like. The rusting that did occur can be attributed to the normal holidays and other problems on any paint job. Incidentally these beams sat through all the winter weather and were top coated late this summer (why didn't SO_2 bother them?).

METROPOLITAN ENGINEER
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MB AME AME MTE MOE MTE

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

RES:rsr

CC: Files.

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DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
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MILTON R. STEWART
CHARLES F. HINKLE
E. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

October 16, 1972

Mr. Leonard I. Lindas
408 Highway Building
Salem, Oregon 97310

Dear Leonard:

Delivered herewith are the following:

1. Two transparent slides OSHD furnished Mr. Saroyan;

2. Enlarged photographic prints of each of the slides;

3. My letter to Mr. Gordon Smith of Can Test, Ltd. requesting his comments on the pictures, and his reply to me dated October 12, 1972;

4. A copy of my letter forwarding the photographic prints to Mr. Saroyan and requesting his comments.

I am seeking confirmation that the photos were received by Mr. Saroyan. By telegram I have asked him to expedite his response so that we, in turn, can sit down with you at the earliest possible date and resolve this whole problem.

Very truly yours,

Richard A. Franzke

Enclosures

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
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ROBERT S. QUINNEY
JOY D. ABELE

October 13, 1972

Mr. J. R. Saroyan
c/o Christopher Inn
300 E. Broad Street
Columbus, Ohio 43215

Dear Mr. Saroyan:

Upon receipt of the State's color slides from you, I sent them to Mr. Gordon Smith of Can Test, Ltd. for his comments. Subsequently, I obtained enlarged photographic prints of each slide and furnished these to him also. I was interested in Mr. Smith's opinion because, as you may know, he followed the painting operations at Canron's plant while the work was being performed and he has conducted various tests for us since the paint problem became known.

Mr. Smith's report is enclosed and as you can see, after examining the enlarged photos, he questions that the "salts" in the picture are from the curing accelerator.

Since the enlarged prints were not available when you examined the slides, I am enclosing one of each and I would appreciate any further comments you may care to make with respect to the pictures and also your comments on the various points raised by Mr. Smith.

This request is submitted to you on the same basis as previously.

Very truly yours,

Richard A. Franzke

Enclosures

cc: Mr. Leonard Lindas

Airmail, Special Delivery

COMMENTS ON FREMONT BRIDGE PRIMER PROBLEM

STUDY OF COLOR PHOTOGRAPHS IN REGARDS

TO PLATE SECTION WITH UNUSUAL EXCESS SALT DEPOSITS

by

JOHN R. SAROYAN

1. PREFACE

Study of the color photograph (Photo #1) shows unusual patterns and amounts of salt deposits. The patterns suggest fluid flow and a moving front of a fluid carrying soluble and/or particulate matter. Also it is important to note that the amounts of moving or flowing fluid had to be in excess, beyond normal—for example more than could result from just applying the normal curing agent on the applied Rust-Ban 191 or 193, at the spreading rate of 1 gallon of curing solution per 400 square feet of coating surface.

2. FLOW DIRECTION

To establish some timetable as to when the salt deposits appeared, it is necessary to determine the direction of the salt material flow. To review the color photographs, and refer to particular areas, Photo #1—so marked—has been marked in coordinates: "A, B, C---R" along one axis and "1, 2, 3---31" along the other axis.

3. SCANNING PHOTOGRAPH OF DEFICIENT BRIDGE SECTION, PHOTO #1

It appears that the general direction of salt material flow of fluid on the subject coated plate, is upside down to the erected-in place-member as shown by Photograph #1. In contrast, a smaller plate shown in Photo #1, coordinates "A-E" x "25-31" shows a normal flow downward in the direction of "E" to "A". Examining the flow, the salt deposits are downward and are identified as a border or flow front.

To examine the main subject plate, turn the photograph (#1) upside down. (The coordinates are duplicated for convenience). Let us look at certain areas to determine flow direction and hence establish when the deficiency developed.

(A) AREA "H-I" x "25-27"

Let us look at the area, letters "B i J", turn the photograph upside down such that the letters appear now as : "ſ ᴉ ꟻ". Let us examine this further.

(1) (2) (3)

(1) The fluid flow clouded over the portion of the letter "J" as shown in the upside down position. The flow (with the photo upside down) is downward. This shows the salt deposits appeared before the plate was erected. The plate was stored in the upside down position.

(2) The "i" is also clouded over (photo upside down) with the flow again downward.

(3) With the photo upside down, the extended leg of the "B" which now is at the top of the B. The flow, downward, approached the leg of the "B" and was confined to the left, "a", of the leg of the "B". The right side of the leg of the "B" shows drainage, "b", (appears as darker area) of flow material. Again the flow is downward with the steel coated plate upside down.

(B) AREA "G" x "1-14"

With the photo (#1) upside down, this area to interpret flow, could represent a pass of the spray application of the curing solution or whatever fluid material produced the flow pattern. The flow is downward. The 3-lobed area at "H-K" x "10-13" shows downward flow. Again, the deficiency as indicated by salt deposits, occured prior to erection while the member was stored.

(C) AREA "G-K" x "1-10"

With Photo #1 upside down, again the flow was downward. There apparently is uneven absorption and surface wetting due to varying porosity and random surface texture, producing the "confusing" light and heavy areas of salt deposits. Again, the salt deposits are formed from a downward flow of material and are identified as a border or flow front. The borders of salt deposits are further supported with material by drainage from adjacent areas (dark areas).

(D) AREA "G-L" x "18-27"

Again with Photo #1 upside down, starting at level "G" and extending "18-27", the flow was downward. There is a fairly even flow downward, with a few

scattered areas of depleted salt deposits showing up as darker areas. As the flow front moved downward, there was a linear break in surface absorption, such that it appears that there was a separation or shrinking away in the flow of material. As the flow continues downward, another salt border or concentrated salt front appears ("K-L" x "20-26"). Again there is drainage from the adjacent areas to the salt front (dark areas) supplying more material.

4. POROSITY NATURE OF INORGANIC ZINC COATINGS

By nature, most applied inorganic zinc coatings are porous. The degree of porosity from area to area on the surface can vary considerably. For example, when the curing solution is sprayed on the surface, a variety of absorptions can be displayed. Some areas may appear flooded, more wetted, and some areas may appear dry, less wetted. The instructions are to thoroughly wet the surface with the sprayed curing solution. At the normal spray rate of about 400 square feet of surface per gallon of curing solution, a nominal degree of white salt deposits usually result. Surplus or excessive salt deposits as indicated by the present subject coated plate, would suggest an abnormal situation.

5. POSSIBLE CAUSES OF EXCESS SALT DEPOSIT - DEFICIENCY

The unusual pattern and amount of salt deposits on the section of the subject steel plate requires explanation. The following three possibilities are cited:

A. Touch-up painting was done, repairing the particular plate, using additional inorganic zinc primer and using excessive curing agent.

B. Environmental conditions were such that chemical reactions took place to produce excessive salt deposits.

C. A gross dislodging of the applied inorganic zinc primer film took place with chemical degradation resulting.

6. DISCUSSION OF A.

On my first visit to the Fremont Bridge site, I did witness various touch-up painting of steel members, where excessive inorganic zinc primer was applied. This appeared to be done on a random basis—I do not believe that at a future date anyone could describe what plates were touched up and to what extent. Only quality assurance records, if kept, could establish whether the subject plate was touched-up or not.

DISCUSSION OF B.

In previous discussions, it has been established that the Portland, Oregon atmospheric environment is very aggressive. The sulfur dioxide (SO_2) could be

responsible for coating deterioration. In review, the SO_2 with moisture formed sulfurous acid and then sulfuric acid. The sulfuric acid could then react with various materials. It could react with zinc metal to form zinc sulfate salt; it could react with unreacted or uncured lithium silicate to form lithium sulfate salt; and if it penetrated to the steel, iron sulfate salts could form. In all these cases, the sulfate salts are readily soluble in water and certainly would be washed away by the prolonged rains. The excessive amounts of salts formed then don't seem feasible on the above basis.

A possible explanation of the excessive salt deposit on the subject plate may be as follows: Another aggressive environmental factor at the Fremont Bridge site was probably due to the numerous cement manufacturing plants. It was described to me, at times dense clouds of cement dust are expelled into the air. These clouds could deposit on the ground and stored plates. The cement dust particles are calcium compounds which are quite alkaline. Such alkaline materials could react with the inorganic zinc primer film and possibly cause some reversal of the cured film—undo the silicate complex. The calcium alkali dust could react in several ways. The reversal of the silicate complex could produce the original lithium silicate and provide the potential for film dislodging or degradation. Then the acid phosphates could be nuetralized by the alkali forming alkali calcium phosphates. Also, the zinc metal could react to form alkali zinc compounds and carbonates (CO_2 from the air, plus alkali condition) with the addition of sufficient cement dust, the resulting excess amounts of salts could be provided for. This appears to be a feasible explanation of the derivation of the excessive salt deposits on the subject steel plate.

DISCUSSION OF C.

Another promising explanation for the excessive salt formation is a gross dislodgement of the applied inorganic zinc primer. The exact sequence may not be exactly as identified, but the important event is that the film is dislodged (or deteriorated). To speculate, the applied film must have been in a "weakened" state, perhaps not fully cured, before the dislodgement could take place. For example, the plate could have been in the open and subjected to rain before full cure had been obtained, dislodging the film. The rain would wash away the curing solution, and the uncured lithium silicate. The "fractured" coating materials would form in flow patterns in excessive amounts. These materials would include zinc reaction products, lithium compounds and phosphates.

7. REVIEW OF CLOSE-UP PHOTOGRAPH, MARKED #2

This photograph shows a typical draining of a water-thin material, such as the Rust-Ban 195 curing solution, (phosphoric acid solution). The flow downward and the subsequent streaking looks normal. The peninsular shaped streaks show, within the confines, areas of heavier salt deposits. The diagonal corrosion zone above the peninsular streaks appears to be drained first of some coating film material, providing a surplus of salt deposit materials and then permitting rusting to take place.

8. SUMMARY.

A. The normal application of Rust-ban 195 curing solution would not produce the extensive and dense salt deposits that apparently withstood frequent rains. Such salts would not remain especially after frequent rains. It then must be concluded, that the deficiency as salt deposits would not be derived singly from the normal application of cure solution.

B. Aggressive atmospheric factors such as the sulfur dioxide and rain could not produce the excessive salt deposits, especially when such salts would normally be sulfates which would readily wash away with the frequent rains.

C. An aggressive factor as alkali cement dust emitted from cement plants in the Fremont Bridge area, could have reacted with the Rust-ban inorganic zinc primer. Such alkaline reactions could have caused breakdown of the coating, producing a variety of soluble and insoluble salts, which rain could cause to flow away into patterns and salt deposits.

D. The extent of the salt deposits had to be derived from an ample source of material. The most logical material supply is the Rust-ban inorganic zinc primer itself. Under severe deterioration conditions, there could result salts that become insoluble and accumulate; with frequent rains several flow patterns can result.

E. In addition to the above, an additional source of salts could have been derived externally, adding to the salt source from the Rust-ban inorganic zinc primer plus the 195 cure solution. Although the sulfure dioxide finally reacts to form sulfates that have been identified as soluble and normally wash away by the frequent rains. However, with calcium compounds such as calcium oxide and calcium hydroxide (and some silicates) the sulfates that form are relatively insoluble calcium sulfate. These can accumulate and add to the salt deposits.

9. CONCLUSION

A. The deficiency as excessive salt deposits, with rust breaking through, on the subject plate (Photo #1) could not have been derived from normal application of curing solution.

B. The sulfure dioxide aggressive environment factor of its own could not produce the ample salt deposits since salts derived are readily soluble sulfates and would wash away by rain.

C. The alkali calcium products as clouds of dust from cement manufacturing plants near the Fremont Bridge site could have contributed to production of salt deposits by alkali reactions with the inorganic zinc primer.

D. The sulfur dioxide and the calcium cement dust, together or in sequence, could have contributed to the formation of excessive salt deposits.

E. The excessive salt deposits had to be derived from gross dislodging or deterioration of the inorganic zinc coating film, associated with rain to produce the flow patterns. Following the removal or fragmenting of the inorganic zinc film, the weakened coating permitted the extensive rusting. This destructive action had to happen prior to erection of the subject plate into the bridge structure. Such destructive action had to result from inorganic zinc coating that had not been fully cured and subjected to rain as the physical impact; or such destruction resulting from chemical aggressive environmental factors including sulfur dioxide and calcium alkali cement products, together or in sequence.

CAN TEST LTD.

1650 PANDORA STREET, VANCOUVER 6, B.C. • TELEPHONE 254-7276

October 12, 1972

Davies, Biggs, Strayer, Stoel and Boley
Twenty-Third Floor, 900 SW Fifth Avenue
Portland, Oregon
97204

Attention: Mr. Richard A. Franzke

Dear Mr. Franzke:

I was about to call you and tell you that I could not respond to your enquiry until I received the prints. The transparencies you sent with your letter are impossible to interpret, with any reasonable degree of accuracy. However before I got around to calling you, the prints arrived and they are clear enough that I think I can answer your questions.

It is impossible to identify the source of the apparent "Salt like" deposits that are evident in the pictures. Formation of white salts is a highly probable sequence of curing and/or transportation and/or storage without a protective seal coat. The manufacturers literature acknowledges that salts are formed as a consequence of the curing process but further points out that they are harmless and easily removed by washing off with water. If the white deposit is indeed salts they are not typical of the salts routinely apparent throughout the projects.

It should at this stage be pointed out that if the colour in the pictures is true the general colouration is very atypical of that produced by the Rust Ban 191 and 193. The colour in these pictures is a grey blue whereas the Rust Bans normally produce a silvery pink colour due to the small amount of iron oxide present in the zinc powder of the pigment.

If the colour is correct we would infer that some abnormal chemical change has taken place in the pigment in the areas where these pictures were taken. Since this colour is not at all typical of the general appearance we would have to conclude that the surface in the

areas photographed has been subjected to some chemical attack after the steel in question was shipped from the Canron plant. Assuming this to be correct any interpretation of the "white salt" like deposit must be associated with this reaction. If the colour in the pictures is not true then they lose all value as a reference.

As further evidence that the "salt like" deposit is unlikely to be associated with the spray applicater of the curing agent, the spray equipment for application of the accelerator would normally produce a pass approximately two feet wide, on this basis, about four passes would be necessary to cover a seven ft. deep member and there would be three areas of overlap on the side of the member. One would expect the excess "salts" to appear at the areas of overlap. This picture does not reflect that condition in any way. To the contrary, the 7 or 8 wave lines of salts, I would estimate, are on an average only about 5 or 6 inches apart. Even if it were assumed the "salts" are the result of some curing action there is no basis to assume in view of this dissimilarity in pattern, that they resulted from the application of the accelerator.

The dissimilarity between the close-up photograph and the erected member must also be noted. The narrow streaks in the close-up are very different from the blotchy, irregular deposits on the erected member. It is also significant that the deposits on the erected member do not show a consistent direction of flow. In fact, it is impossible to determine from this photograph whether the members were right side up or upside down when the "salting" occurred. We do know that the accelerator was applied in Canron's paint line while the members were upside down.

From our experience and from our examination of these pictures we would seriously question that the "white salt" deposits are the product of the curing accelerator. Can Test Ltd. conducted a number of experiments using different spread rates of curing accelerator and our tests produced some salt deposit only when we exceeded the recommended spread rate on the order of four times. If, however, accelerator had been applied to the member in the photograph at four times the recommended rate of coverage, there would have been two results:

A. Prior to shipment the member would have been rejected at the Canron plant because the coating at that time would have degraded to produce a soft, powdery, blistering and flaky surface.

B. Some relatively short time later substantially the entire surface would have been rusted. In the photograph however, there is only a single band of rust about 1/3 the distance down from the top.

I mentioned earlier that the zinc salts formed as a result of the curing process are removable by washing. One might expect that if the "salts" in the photograph were attirbutable to the accelerator they would show some evidence of washing due to the heavy rainfall in Portland.

While one can speculate at length about the nature and origin of the "white" deposits in the photograph, it is academic so to do. The important point, in our opinion, is that there is no correlation between the apparent rust and the distribution of the "white salt" deposits over the surface of the erected member. To the contrary (and this is true also in close-up photograph) there is rust above, within, and below the "salt deposit".

The physical appearance of the streaking apparent in the close-up photograph more nearly resembles the flow pattern of the accelerator which we many times observed. The manufacturer states and ordinary experience confirms that if a fluid with the viscosity of the accelerator is sprayed on a nearly vertical surface so as to "thoroughly wet" that surface some fluid will run down the surface and this will be evident as streaks. Again, examination of the close-up photograph does not disclose a correlation between the presence of rust and the streaks on the surface. Some of the most pronounced rusting is in areas where there are no streaks and conversely where there are streaks there sometimes is no rusting. Again, it would appear there is virtually no rusting under the areas where the "white deposits" are the heaviest which of course is consistent with the total paint theory, i.e. protection of the zinc by accumulation of salts which fill the pores and prevent penetration of water to the substrate.

The rusting that is apparent in these photographs is not unlike that which was wide-spread throughout these projects, including members painted with Rust Ban 191, with which no curing accelerator was used.

In summary, we would offer the following comments:

1. We can not state with any certainty the nature of the "white deposits" apparent in these photographs. i.e. whether zinc salts and/or other soluble or insoluble salts.

2. From examination of the photographs we are inclined to believe that the "white deposits" evident on the erected member are not the result of application of curing acid since they are totally unlike the "salt" deposits we personally observed at the plant and throughout the project over a period of many months. Neither the pattern nor the distribution of the "salt" deposits in this photograph resemble what we saw or, indeed what one would expect considering the manner of application.

3. The colour of the paint film in the pictures gives rise to some doubt as to whether the paint film has not been subjected to attack by some chemical source.

4. Regardless of the origin and nature of the "salts", we cannot from these photographs see any correlation between the rusting and the presence of the deposits, except that the "salts" appear to have protected the zinc coating so that virtually no rust is apparent through the "salt" build up.

5. The rust apparent in these photographs is not unlike that we observed throughout both projects, affecting steel painted with both Rust Ban 191 and Rust Ban 193.

6. From previous laboratory testing we determined that application of excess accelerator caused visible damage to the zinc which was apparent very soon after application of the accelerator and which affected the adhesion and hardness of the primer coating. No such damage is apparent in these photographs.

In our previous report to you we stated that based upon our investigation and testing, in our opinion the loss of film thickness was inevitable and the consequential rusting would continue until a seal coat was applied over the zinc primer to protect it from the aggressive contaminants in the atmosphere. We adhere to that opinion.

Your photographs and slides are returned herewith.

Yours very truly,

CAN TEST LTD.

J. G. Smith

JGS:lr

October 4, 1972

Mr. Gordon Smith
Cantest Limited
1650 Pandora Street
Vancouver, B.C.
Canada

Dear Gordon:

I am enclosing herewith two transparent slides taken by the Oregon State Highway Department and furnished to us in connection with the study of the primer paint problem.

It has been suggested that these slides indicate excessive application of curing accelerator. Because you had occasion to view the paint operations during production and also to visit the site after the members were in place, I would appreciate your comments on these slides as they may relate to the overall primer failure.

I am having some prints made from these slides and I will send them to you when they are available.

While you should feel free to take whatever time is necessary to properly analyze this question, we are very anxious to conclude our discussions with OSHD, and, therefore, will appreciate your response as soon as possible.

Very truly, yours,

Richard A. Franzke

RAF:pm
Enclosures
CC: Canron Limited

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 26, 1972

To: Walter Hart
Bridge Engineer
Salem

SUBJECT: John Saroyan's Report on
Zinc Paint Failure
East & West Fremont Approaches

Your letter of September 20, transmitted a report by John Saroyan relative to a series of questions which had been submitted to him with respect to the zinc paint problem on the Fremont approaches. You requested our review of this document by Mr. Saroyan and any comments we might have.

In order to better examine this report, I separated it into two parts ---- (1) those questions and answers which deal with the blasting of the steel and the mechanics of getting the paint onto the girders which is covered by all questions except No.'s 6 and 9 and (2) those questions (6 and 9) which deal with events which occurred after the paint was applied and which might help explain the zinc problems.

Tabulated below for easy reference are the first set of questions dealing with the mechanics of painting. That column shown as "Evidence" was taken from Mr. Saroyan's report and the column entitled "Help Explain Problem" is my evaluation of Mr. Saroyan's answers.

	Cause	Evidence	Help Explain Problem
1.	Excessive blast profile	Course, rough, surface	Yes
2.	Insufficient atomization pressure	Orange Peel & Lack of adhesion	No
3.	Insufficient pot pressure	Granular, dusty, dry, porous coating	Yes
4.	Inadequate Agitation	(a) course, highly pigmented dull areas (b) very glassy, smooth areas (c) areas between (a) and (b)	Yes
5.	Excessive agitation	Modeled, spotty paint film This answer mentions cure solution RB 195. This was not used on RB 191.	Yes

NOTED
W. J. HART

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SEP 27 1972
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	Cause	Evidence	Help Explain Problem
7.	Excessive atomization pressure	Granular; dusty, porous film	Yes
8.	Excessive Pot Pressure	Orange Peel and Lack of Adhesion	No
10.	Gun too close to steel	Orange Peel and Lack of Adhesion	No
11.	Gun too far from steel	Granular, dusty, porous film	Yes

You will note that my evaluation of answers (2), (8) and (10) is that these causes would not help explain the zinc paint problem. The reason for this conclusion is that the "Evidence" as given by Mr. Saroyan for these three causes is "Orange Peel" paint surface and lack of adhesion. To the best of my knowledge, orange peeling and lack of adhesion has never been mentioned as a problem with the 193 zinc paint. The evidence and effect given by Mr. Saroyan in the answers to the other questions in this first catagory (questions (1), (3), (4), (5), (7) and (11) do suggest that these causes could be contributors towards the zinc paint problem. However, it is my personal opinion that these probably did not play a very large role in contributing to the problem. All the "Evidence" listed is manifested in a very poor-appearing paint job. If we had any paint inspection at all in Vancouver, and I'm sure we did, the inspectors would have noticed this poor product and we would have had some mention of this. This is not to say that some of the "Causes" listed didn't occur and that they didn't have some bearing on the problem but I don't believe that the answer to the problem lies in the mechanics of putting the paint on the girders.

Question No. 6 deals with the consequences of exposing the freshly painted girders to rainfall. The answer assumes that RB 191 was postcured prior to exposure. This was not the case. This answer should be amplified with the understanding that the RB 191 was not postcured. RB 193 was postcured with RB 6851 but this answer does not mention RB 193. I would assume that the answer would be the same, but this should be clarified. It is very interesting to note that the "Evidence" given in the answer of a "blotchy" or a water stained area describes the steel girders as they were received in Portland.

Question No. 9 deals with the effects of application of various rates of acid curing solution on the freshly painted girders. Unfortunately Mr. Saroyan is talking about the application of RB 195 curing solution on RB 191 inorganic zinc. In actuality, RB 6851 acid cure, was applied over RB 193. It may be that the data supplied by Mr. Saroyan applies equally to the paint and acid actually used but this should be verified. My comments that follow assume that Mr. Saroyan's answer would be the same if he had been using the correct formula numbers.

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Saroyan goes through a chemical analysis of the acid cure and paint to end up verifying that Enjay's recommendation of using 1/2 gallon of curing acid per gallon of inorganic zinc is correct. He then goes on to calculate a spreading rate for the acid based on an assumed spreading rate for the inorganic zinc. By assuming that the zinc was applied three dry mils thick over the peaks of the profile and further that the profile was a mil and a half to two mils deep, he concludes that the spreading rate for the zinc was 200 square feet per gallon and that, therefore, the spreading rate of the acid was correctly stated by Enjay at 400 square feet per gallon.

Mr. Saroyan's assumptions are based on the data that has been supplied him. However, I believe that some refinements should be made in these assumptions. With respect to the thickness of the film, a modification was made early in the project with respect to where the top of the blast profile stopped and the bottom of the paint film started and I am reasonably sure that some projection of the blast profile into the paint film was allowed when it came to measuring the film thickness. Secondly, when the change was made to RB 193, since it had better adhering qualities, the requirement of a one and a half to two mil anchor pattern was dropped in favor of obtaining a near-white blast. As a result, it was reported that the anchor profile used for the 193 paint was a half mil thick.

Therefore, where Mr. Saroyan assumes that there is a total of four and a half mils of zinc paint on the steel for spreading rate purposes, I believe a closer approximation would be on the order of three mils, say two and a half mils for the paint thickness and a half a mil allowed for filling the blast profile, giving a total of three mils. This would give a spreading rate for the zinc paint of 300 square feet per gallon and a spreading rate for the acid of 600 square feet per gallon. Since Canron was instructed by Enjay to use a spreading rate of 400 square feet per gallon and further, assuming that Canron painters may have used the theory that if a little is good a lot is better, it is conceivable that the amount of acid cure actually applied may have approached double that actually required.

If one can correctly hypothesize that the amount of curing acid actually applied is anywhere near double that which should have been applied then it is not difficult to explain what happened to the inorganic zinc paint when one reads Saroyan's "effects" of the application of acid at a rate of 250 square feet per gallon when he is assuming that 400 square feet per gallon is the correct rate. The "effects" as described by Saroyan of this "overdose" of acid describes almost exactly the phenomenon of zinc paint disappearance which we actually experienced. In my memo of April 8, 1971 written after visiting Canron's paint line in Vancouver, there is a statement that "Gordon Smith of CanTest has a theory that the phosphoric acid which is being used for the post-cure is absorbed deep into the zinc coating, possibly clear to the base metal, then later when the paint is exposed to moisture the unused acid is reactivated, comes to the surface and softens the surface of the zinc". If it can be shown that excessive acid was applied to the inorganic zinc, then Gordon Smith's theory takes on added significance.

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The above-mentioned assumption of a total of three mils of zinc yielding a spread rate of 300 square feet per gallon of zinc is predicated on the operation in Canron's plant prior to the discovery of the paint problems in Portland. After this point in time, Canron made a deliberate effort to put more zinc on the girders and even went so far as to apply two coats. They have recently told us that even these girders have given trouble in Portland.

If these latter girders have also had zinc paint problems and perhaps Mr. Shotwell can comment on this, I believe this also can be explained by the application of acid cure. If you assume the milage of zinc put on in the latter condition is 5 to 5-1/2 mils with an additional allowance of a half mil for the profile covering, then a spreading rate for the zinc would be on the order of 150 square feet per gallon which would give a spreading rate for the acid of about 300 square feet per gallon. If you also assume that at this point in time Canron's people were following Enjay's recommendations for acid spreading rate more closely, and my memo referred to above mentions an acid spreading rate of 460 square feet per gallon, then you would have the situation where not enough acid was being applied and the effect described by Saroyan under his spreading of 800 square feet per gallon would apply. According to Saroyan, this condition would also promote premature rusting because the paint would not be adequately cured out.

Under the answer to question 9, Saroyan comments on the transparencies sent him. I didn't see these, but if they were typical of our problem, and I presume they were, his comment that they depict an obvious excess of curing solution is particularly significant in light of what I have said above.

I have sent copies of this letter to the three Resident Engineers on the Fremont project hoping that they would comment on my review as well as Saroyan's report and send their thoughts on both to you.

H. S. COULTER
Metropolitan Engineer

By: Edward L. Hardt

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson
R. E. Shotwell
John Howard
R. O. Cunningham
Dean Mandrell

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OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

7311

DATE October 5, 1972

TO Mr. H. S. Coulter
Metropolitan Engineer Attn. Mr. E. L. Hardt

FROM Walter J. Hart
Bridge Engineer

ORIGINAL SIGNED
WALTER J. HART

SUBJECT Fremont Bridge
Paint Problem

Attached is a copy of the second installment of Mr. Saroyan's answers to the questions posed relative to the painting on the Fremont interchanges.

Please review this material and advise this office of points of concurrence or disagreement with the conclusions reached by Mr. Saroyan.

WJH:dh
Attachment

cc A. E. Johnson
L. I. Lindas
R. O. Cunningham
R. E. Shotwell
J. D. Howard
Ed Rief
John Jenkins

NOTED
A. E. JOHNSON

RECEIVED
OCT 6 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

1320 Carl Ave.
Vallejo, Calif. 94590
Home Phone: 707-642-0387
Work: 707-646-3203
September 27, 1972

AIR MAIL

(1) Mr. Richard A. Franzke
Davies, Biggs, Strayer, Stoel and Boley
Twenty-third Floor 900 S. W. Fifth Ave.
Portland, Oregon 97204

(2) Mr. Leonard I. Lindas
Department of Justice
408 State Highway Building
Salem, Oregon 97310

Gentlemen:

Enclosed are the answers to Questions B through Q. Also included is the summary of time spent. The total bill is for $1,995.00 or $997.50 for each of you.

Mr. Terry Lawry informed me by phone that you needed to review the transparencies (color slides) you sent me. They (2) also are enclosed in the package for Mr. Richard Franzke.

I will be leaving for Washington, D.C. area on October 1st and plan to be back around Oct. 27th. From Oct. 1-13 I can be reached (leave message if not in) at Park Central Apt. Hotel in Wash. D.C. 202-393-4700. From 13-17 Oct. I will be at The Chrisopher Inn - Columbus, Ohio (also can contact me 16-17 Oct at Battelle Memorial Institute, Columbus.)

Trust that all is going well with both of you. Please let me know if further information is required. Best regards

Sincerely, /s/ John R. Saroyan

Summary of billing from Sept. 9, 1972, to Sept. 27, 1972, for professional consultant services given in connection with the Fremont Bridge coating problem.

	DATE	HOURS WORKED
1.	Sat Sept 9	5
2.	Sun Sept 10	5
3.	Mon Sept 11	1
4.	Wed Sept 13	3
5.	Thurs Sept 14	2
6.	Fri Sept 15	4
7.	Sat Sept 16	6
8.	Sun Sept 17	4
9.	Wed Sept 20	4
10.	Thurs Sept 21	2
11.	Fri Sept 22	3
12.	Sat Sept. 23	4
13.	Sun Sept 24	4
14.	Mon Sept 25	4
15.	Tues Sept 26	4
16.	Wed Sept 27	2
	Total	57 hrs.

at $35/hr. 35 x 57 = $1,995.00

each pay one-half or $ 997.50 each

submitted:
September 27, 1972

/s/ John R. Saroyan
John R. Saroyan

B. Question

Generally, comment on the advisability of:

1. Putting vinyl directly over zinc.

Answer

Before applying vinyl over the inorganic zinc coating, the surface must be free of any white deposits resulting particularly from post cure agents. The white deposits should be removed by high pressure fresh water rinse. Mechanical scrubbing should also be used if necessary.

For inorganic zinc coatings that have been approved under MIL-P-23236 or under Naval Ships Technical Manual, Chapter 9190, and properly washed of the white deposits, a thin coat, maximum 1 mil dry film, of red lead vinyl, Formula #119 (MIL - P - 15929) is applied as a tie coat.

Although the above practice has resulted in some satisfactory applications, where #119 has served as a tie coat, promoting good adhesion between the inorganic zinc primer and the topcoat or finish coat of vinyl, there have been some classical failures. Vast sheets of vinyl have peeled off the inorganic zinc primer.

An analysis of the conditions that promote good adhesion and those that induce and cause poor adhesion and peeling, when #119 is used as the tie coat, have been studied microscopically. The attached three color slides (photomicrographs) show the surface contour or profile of cured inorganic zinc coatings. The surface of Rust-Ban 191 as shown in the slide, is only slightly rough. The slide for Rust-Ban 190 shows a rather smooth surface. In contrast, the profile for the experimental B-3 inorganic zinc coating is very rough and porous.

Loss of adhesion of topcoats using vinyl #119 as a tie coat can be explained by identifying the surface profile of the inorganic zinc. If the surface is relatively smooth, adhesion must be derived from chemical bonding. Hence, with a tie coat such as #119, there is insufficient chemical adhesion. If the #119 is applied too thick, there develops a coating with high cohesive strength and in incidents of stress (thermal shock, etc.) is prone to exhibit poor adhesive strength. Also, if the #119 is applied thin, perhaps necessitating the addition of extra solvent, penetration of the #119 into the porous inorganic zinc can occur. Here, besides being functional as a tie-coat, the thinned #119 can serve as a seal coat. Incomplete contrast, when the inorganic zinc profile is rough, the surface per unit area is increased considerably and mechanical adhesion is promoted. This is a direct corollary to improving adhesion by abrasive blasting a surface.

The following experiments were conducted in regards to surface profile of inorganic zinc coatings top coated with vinyl #119 and immersed in brackish water for 3 months*:

*"Inorganic Zinc Coatings in the U. S. Navy" by John R. Saroyan, presented at the National Association of Corrosion Engineers, Western Region Conference, Phoenix, Arizona, 28 October 1964.

Test Panel	Inorganic Zinc Coating Surface Profile	Adhesion of #119 (To Inorganic Zinc)
1. Galvanized Steel	1. Very smooth	1. Poor adhesion, blistering and peeling.
2. Experimental Lab Inorganic Zinc #51	2. Quite smooth	2. Poor
3. Experimental Lab Inorganic Zinc #52	3. Rough	3. Good
4. Commercial Inorganic Zinc I.D. #53	4. Quite smooth	4. Poor
5. Commercial Inorganic Zinc I.D. #54	5. Some roughness	5. Fair
6. Commercial Inorganic Zinc I.D. #55	6. Quite smooth	6. Poor

Vinyl coatings can be applied directly on inorganic zinc coating, Rust-Ban 191 (or 193) provided the following conditions are met:

1. The surface is free of white salt deposits.
2. The surface is clean otherwise: No oil, grease, dirt, etc.
3. The surface is relatively rough and normally porous.
4. The vinyl is applied as a low viscosity material, solvent being added to get the low viscosity.
5. The applied vinyl be no more than 1 mil dry film.

See attachment #7 for additional information from Enjay literature for "Topcoating Inorganic Zincs."

B. Question

Generally, comment on the advisability of:

2. Using 5 mils of hi-build vinyl in one coat (viscosity over 125 KU)

Answer

The disguise of a single thick coat versus multiple coats as being more economical has been the theme of recent "sales pitches" as a cost-reduction devise through labor savings. This is still controversial matter now and in some governmental circles (Navy) such a criterion cannot be used when bidding on paints. Only what is in the container and not the way it is applied or any other alleged cost savings can be reflected in the bid price.

As discussed in the previous question, B-1, to obtain good adhesion of vinyl over inorganic zinc, a thin coat, a mil or less dry film, must be applied.

From attachment #8, under multiple coats, the following additional criteria are discussed:

1. Multiple coats, of varying colors, should be used to obtain complete, uniform coverage.

2. For coatings that contain solvent, multiple thin coats rather than fewer thicker coats permit the maximum release of solvent.

Summary

Generally, using 5 mils of hi-build vinyl in one coat on inorganic zinc is not advised. Loss of adhesion can result. Also, there can be uneven varying applications with runs and sags or orange peel roughness.

B. Question

Generally, comment on the advisability of:

3. Using a vinyl wash primer or some other seal coat.

Answer

Vinyl wash primer, formula 117 (see attachment #11) - MIL-P-15328- is a two package composition. One component is an alcohol solution of polyvinylbutyral resin in which basic zinc chromate is incorporated. (A little lampblack for tinting and other additives can be included.) The other component consists of an alcohol solution of phosphoric acid. At the time of use, the two components are mixed and used as a "wash" coating after about one-half hour incubation period.

Although several competing reactions take place within the mixed composition, some free phosphoric acid still remains. It is through this free phosphoric acid that certain amount of adhesion is developed when #117 is applied over steel or galvanizing (zinc).

Attachment #9 discloses that wash primer improves adhesion of coatings to zinc. Since inorganic zinc coating contains a very high percentage (85%) of zinc, it follows that wash primer should promote adhesion of coating to it. Also, the free phosphoric acid should serve as curing agent for inorganic zinc coatings such as Rust-ban 191 or 193.

Attachment #10 states that the acid component of #117 wash primer serves as a curing agent for Rust-ban 191 and that the separate application of curing solution is not required.

The following experiments* (partly reported under Question B-1, are included here in its entirety: (3 months immersion in brackish water)

Test Panel	Inorganic Zinc Coating, Surface Profiles	Adhesion 117+119	Adhesion #119
1. Galvanized Steel	1. Very smooth	1. Good	1. Poor adhesion Blistering and peeling.
2. Experimental Lab Inorganic #51	2. Quite smooth	2. Good	2. Poor
3. Exp. Lab #52	3. Rough	3. Good	3. Good
4. Commercial Inorganic Zinc #53	4. Quite smooth	4. Good	4. Poor
5. Commercial Inorganic Zinc #54	5. Some roughness	5. Good	5. Fair
6. Commercial Inorganic Zinc #55	6. Quite smooth	6. Fair	6. Poor

*"Inorganic Zinc Coatings in the U.S.Navy" by John R. Saroyan. Presented at National Association of Corrosion Engineers, Western Region Conference, Phoenix, Arizona, 28 October 1964.

Summary

Wash primer, formula #117 (MIL-P-15328) may be used over Rust-ban 191 to promote adhesion, seal, cure and serve as a tie-coat for vinyl topcoats. No other curing solution need be applied. In fact, if a cure solution like Rust-ban 195 has been applied, then there would be some risk in applying #117 over this. With additional phosphoric acid from the #117, there could be loss of adhesion. Also, #117 as such, cannot remain as a topcoat since it will be subject to environmental attack. It needs to be topcoated with vinyl, epoxy, etc.

ATTACHMENT #9

galvanizing (MIL-Z-17871) is used to protect thin-gage steel plates for submarine superstructures and ship topside structures. Bilge surfaces and voids are galvanized to provide added corrosion protection. Hardware such as nuts, bolts, washers, brackets, and braces is galvanized to promote longer useful life.

For marine surfaces not immersed in water, zinc metallic coatings, such as galvanizing, may last for years. Zinc would provide long years of protection on the decks of ships if it were not for the fact that it becomes very smooth and hazardous, and nonslip topcoats are required for safety.

The zinc metallic coating can be considered a large zinc anode that wastes away in seawater to provide corrosion protection to bare-steel areas resulting from damage or "holiday" painting. Fouling protection, however, is only for short periods, depending upon the incidence of fouling and the amount and nature of the corrosion products formed on the surface. The most efficient use of a zinc coating underwater is to topcoat it with organic protective coatings, including antifouling paints. Adhesion to zinc can be a problem unless there has been prior chemical etching, weathering, or abrasive blasting. A successful approach in improving adhesion of coatings to zinc is the use of a wash primer, MIL-P-15328, formula 117.

Once galvanizing is depleted or damaged because of anodic action, burning, welding, or abrasive blasting, the repair of these areas is difficult. In some cases flame-sprayed zinc has been applied to areas where galvanizing was damaged or depleted. This is a slow and costly process, and it leaves a porous film that is very reactive to moisture. Effective touch-up painting of damaged galvanized areas is done with coatings containing zinc dust. The performance of such zinc coatings is so excellent that today they are often used as replacements for galvanizing.

Inorganic zinc coatings have been evaluated and placed on the qualified-products list of MIL-P-23236. Tests have shown that (1) a hydrolyzed tetraethyl orthosilicate zinc coating of 92.2 percent by volume of zinc in the dry film approaches but does not equal the cathodic-protection properties of a zinc anode; (2) inorganic zinc formulations are a little more effective than the organic formulations; and (3) postcured inorganic-silicate types are a little more effective than the self-cured types.

Zinc-rich coatings as a replacement for zinc anodes[65,67] must necessarily provide cathodic protection at a distance. However, as a substitute for galvanizing[67] they need not operate at any significant distance.

Cadmium Coatings. Cadmium, which is similar to zinc in chemical properties, is electronegative to iron or steel[66] and will cathodically protect such surfaces in a galvanic cell. The potential difference between cadmium and iron is less than that for zinc and iron. Therefore cadmium does not protect as large an area of exposed iron as does zinc. Cadmium darkens less than zinc and does not form bulky white corrosion products as readily. It can be more readily soldered without the use of corrosive fluxes. Unlike zinc, which is applied to steel successfully by hot dipping, cadmium coatings are applied by electroplating.

Steel plates coated with 0.0002 and 0.0005 in. of cadmium and zinc were exposed at the severe marine atmosphere at Kure Beach, North Carolina, and in an industrial-marine atmosphere in New York.[69] The results of the test showed that zinc-coated specimens were slightly better in New York than the cadmium specimens, but the cadmium was found to be several times more effective in protecting steel than zinc at Kure Beach. Salt-fog tests have shown cadmium to be more effective than zinc.[69] In salt-fog tests one test piece of two anodized aluminum castings bolted together with zinc-coated steel bolts and washers was subjected to the salt fog for 240 hr. The anodizing did not prevent general macrocorrosion on the surface of the aluminum panels. The zinc-coated washers and bolts showed corrosion. Also, there was anodic corrosion under the washer area on the aluminum panel. Apparently the steel of the bolt was exposed and formed the active steel-aluminum galvanic cell.

Another test unit consisted of two anodized aluminum castings bolted together with cadmium-coated steel bolts and washers. This unit was also subjected to the salt fog for 240 hr. The cadmium plating offered more protection to the aluminum than the zinc in the previous test specimen. Furthermore, there was only a slight amount of corrosion of the cadmium on the bolts and washers, furnishing good protection at the

With RUST-BAN 190, curing treatment may normally be applied within 1-2 hours after the film has dried (an even gray color is reached), at which

vinyl wash primers, however, are somet unsuitable for other than polyvinyl chloride systems. Enjay Wash Primers, RUST-BAN VY (yellow, Y-1), for example, should age for 5

Attachment #10

not recommended for use in contact with strong acids or alkalis (reagents with pH values below 6.5 or above 10.0), chlorinated hydrocarbons, and crude oils with acid numbers above 0.4 or hydrogen sulfide content above 300 ppm.

More detailed information can be obtained from your Enjay representative.

Mixing and application procedure

The service life of RUST-BAN 186, 188, 190 or 191 is largely dependent on the care with which each is applied, a matter fully covered in the instructions which accompany each package. These coatings are two-part systems packaged in one-gallon or five-gallon containers. One container marked "A Liquid" contains the liquid vehicle; the other, marked "B Powder" contains zinc dust. The powder is thoroughly mixed *into* the liquid. At 70-90°F (21-32°C) the resulting mixed product has a pot life of 8-12 hours for RUST-BAN 188, 24 hours for RUST-BAN 190 and 120 hours (5 days) for RUST-BAN 186 and 191.

The prepared coating material should be sprayed only with the proper recommended application equipment (Refer to Service Data Section—"Spray Equipment for use with RUST-BAN Protective Coatings."). The coating should be applied to a surface which has been freshly blasted to near-white (SSPC-SP10-63) (S.S. Sa2½) or white metal (SSPC-SP5-63) (S.S. Sa3), depending on the ultimate exposure. For example, Enjay recommends a near-white blast for mild abrasion, general atmospheric exposures and where economy is a prime consideration. For severe atmospheric abrasion or immersion exposures, however, a white metal blast is recommended.

RUST-BAN 188 (self-curing), under normal conditions (50-95°F, 10-35°C air temperature — 50-90% relative humidity), will reach a water insensitive state within 20 minutes and may be topcoated in 12-16 hours.

With RUST-BAN 190, curing treatment may normally be applied within 1-2 hours after the film has dried (an even gray color is reached), at which time, it is sprayed with a coat of curing solution, RUST-BAN 195. After a curing period of 18-24 hours, the surface will have developed full resistance to the weather. Once the salts, formed by the curing reaction, and excess curing solution have been removed, RUST-BAN 190 can be topcoated or placed in service. (The salts and excess curing solution are usually removed by high pressure water, sometimes supplemented by scrubbing.)

RUST-BAN 186 and 191 — being self-curing — require no additional treatment. Under normal conditions (50-95°F, 10-35°C air temperature — 50-90% relative humidity), RUST-BAN 186 and 191 are water insensitive within one hour and can be placed in service or topcoated in 8-12 hours. Outside of these limits, curing may be faster or slower, depending on which extremity of weather prevails. Adverse weather conditions require special precautions outlined in the application instructions. Also, specific drying schedules for most weather conditions are outlined in the application instructions.

Post-curing of RUST-BAN 191 (or RUST-BAN 186)

While RUST-BAN 191 is certainly a self-curing product, it has the unique advantage that it can be rapidly cured with an accelerator. Either way, post- or self-cured, the significant chemical and physical properties of the cured RUST-BAN 191 film are essentially the same. When it is desirable to accelerate the self-curing properties of RUST-BAN 191, RUST-BAN 195 curing solution provides superior results and should be used.

One exception to this is when a polyvinyl chloride coating system (including a vinyl wash primer) is to be used in topcoating RUST-BAN 191. In this type of system, the acid component of the vinyl wash primer accelerates the cure of the RUST-BAN 191 sufficiently, so that the separate application of a curing solution is not required.

Vinyl wash primers, however, are sometimes unsuitable for other than polyvinyl chloride topcoat systems. Enjay Wash Primers, RUST-BAN VY 6528 (yellow, Y-1), for example, should age for 5 days

HANDBOOK : OCEAN AND UNDERWATER ENGINEERING
McGRAW-HILL-MYERS
ATTACHMENT #11
PAGE 1

PROTECTIVE COATINGS

Coating thicknesses of at least two, and preferably three, times the average peak height are recommended for corrosion protection. Table 7-17 illustrates performance of an alkyd metal primer related to profile and film thickness after exposures in a salt-fog cabinet. The test results show that thin films leave peaks unprotected and prone to early pinpoint rusting.

Surface Pretreatment

Some metals react chemically with paint vehicles to produce compounds that may either improve or reduce coating adhesion. For example, it has been noted that a paint made from the copolymer resin of vinylidene chloride and acrylonitrile (Saran) will react with iron. This reaction may be necessary for promoting adhesion. However, if a coat of formula 117 wash primer (MIL-P-15328), a known adhesion promoter, is first applied over the metal, then the Saran coating peels off easily. Decomposition products that react with the metal surface, one of which has been identified as acetic acid, tend to decrease adhesion. Such undesirable by-products result from the presence of moisture and the oxidation process during the drying of certain paint vehicles. In order to reduce such paint-metal reactions, and also to provide for rust inhibition and protect against rust creeping under a coating film, metal pretreatments are used to convert the reactive metal surface to a chemically inert and adherent compound. These new stable surfaces usually are readily wetted by most organic coatings, with resulting better adhesion.

Phosphate Coatings. Pickled or acid-cleaned steel plates usually require a rust-inhibiting dip to remove excess acid and to provide a phosphate-chromate stable surface. A good inhibitive solution is as given above under Removal of Mill Scale and Rust.

Most of the proprietary phosphating solutions are complex but usually contain a phosphoric acid solution and a metal phosphate, such as zinc phosphate, manganese phosphate, or manganese dihydrogen phosphate. The phosphate layer or film formed on the metal surface consists of crystalline phosphate salts of the metal being treated or of the metal ions added to the phosphating solution. Besides the formulation given above, a common preparation for treating iron or steel[35] consists of primary zinc phosphate in phosphoric acid solution with heat and agitation. A tertiary insoluble zinc phosphate salt is formed, which makes up a good part of the phosphate protective layer; a small amount of secondary iron phosphate is also formed. Initially the solution is at nearly the saturation point of the tertiary zinc phosphate. When a piece of steel is immersed in the solution, the phosphoric acid reacts with the iron, liberating hydrogen gas. As the free acid is used up and the pH increases, the solubility of the tertiary zinc phosphate is exceeded, and deposition on the steel begins. Since the phosphating is slow because of cathodic polarization, accelerators or depolarizers such as nitrates, nitrites, and chlorates are used.

Shop Coat. After a steel plate is mechanically or chemically cleaned and treated, a shop coat, or construction primer, is applied to protect the clean metal surface during fabrication. A version of this coating is a weld-through primer which permits welding without removal of this coating.

One of the common primers used on mild-steel plates is an alkyd–zinc chromate coating (formula 84/47 conforming to specification TT-P-645). During and after construction, burned or weld areas are touched up with the same primer to protect the bare steel from premature corrosion. In many areas the construction primer is retained and topcoats are applied over it. In critical areas like shipbottoms, or in tanks, where definite coating compatibility is required, the construction primer is blasted off along with any phosphate-chromate pickling layer, so that epoxy or other chemical-type coatings can be applied. One recent requirement for a weld-through primer is that it permit welding through and need not be removed prior to application of subsequent coatings. Also, it should be compatible with subsequent topcoats, including epoxy, coal-tar epoxy, polyurethane, vinyls, silicones, and chlorinated alkyds. A suitable weld-through primer is a modified prepolymerized epoxy.

Wash Primer. The so-called "wash primer" has come into widespread use for many applications as a pretreatment for metal, plastic, concrete, wood, etc., to pro-

PAGE 2

mote coating adhesion. It is made from a phosphoric acid, isopropyl alcohol, polyvinyl butyral resin, and inhibitive chromate pigment.

The present formula 117 pretreatment coating covered under MIL-P-15328B is being used internationally for a variety of surfaces to promote adhesion, to make the surface passive, and to prevent premature corrosion; for example on shipbottom sand-blasted steel; on stainless-steel sonar domes, replacing the usual nitric acid treatment for passivating the surface; on wood hulls to seal the pores and promote adhesion of shipbottom vinyl paints; on concrete to neutralize alkalinity and to seal and promote adhesion of top coats; on aluminum surfaces to promote adhesion where the standard process to treat aluminum for applying a chromium-conversion coating is not utilized; on galvanizing; and on magnesium surfaces to improve adhesion of coatings. Usually the phosphoric acid diluent that is added to the base material is reduced to one-half to one-third the standard total amount for magnesium.

Special Pretreatment for Aluminum. In addition to the wash-primer treatment, chromate chemical processes are widely used to produce stable surface compounds on aluminum and to improve coating adhesion. After the aluminum surface is cleaned mechanically, chemically, or with solvents, it is treated with a detergent cleaner to remove any greasy materials. Then any oxide formed is removed with a mild alkaline cleaner; this may leave a black smut, but it can be removed with a deoxidizer such as Deoxidizer No. 1.* The part is then treated with a suitable chromium-conversion coating. Subjecting the part to an acidulated hot-water rinse ensures the best type of conversion coating. The resulting color should be irridescent golden to gold.

Besides the chromium type of surface treatment, there are oxide types (anodizing) produced electrolytically which are effective in promoting coating adhesion and which serve as a resistant layer.

Special Pretreatment for Magnesium. The normal film that forms in air on magnesium is not an effective barrier against a moist atmosphere. Certain anodic treatments, such as Dow No. 17† followed by a wash primer (117, MIL-P-15328B), a zinc chromate–vinyl primer (120, MIL-P-15930B), and a topcoat of vinyl alkyd (122–27, MIL-P-15936B), give good protection.

Most of the treatments for magnesium are immersion or anodic treatments in baths which contain dichromates or mixtures and oxyacid salts such as sulfates, nitrates, or phosphates. Several treatments are given in MIL-M-3171B.

Anticorrosive Coatings

Anticorrosive, or barrier, coats are the real workhorses of a coating system. They usually form the bulk of the film thickness that is necessary to serve as the wall between the prepared or treated surface, with or without primers, and the topcoats which are in direct contact with the destructive marine environment. Although such coatings may include rust-inhibitive pigments when used for metals, and may even contain such pigments throughout the entire coating system, as in lead silicochromate, the burden of the protection rests upon this barrier. It has been observed that an improvement in the anticorrosive coating in a shipbottom paint system can definitely improve the antifouling performance.

The coating must keep the moisture from penetrating through to the marine surface. If moisture gets through, then corrosion starts: if oxygen is present and passes through the film, this corrosion action is accelerated. Water-soluble inhibitor chromate pigments in the primer do help to reduce or retard the corrosion action by supplying a pool of chromate ions. This pool can be located under a blister where corrosion is arrested, even in the presence of chloride ions.

The penetration of moisture can be stopped successfully, for example, by 0.006 to 0.01 in. of nonporous, dense organic coating films. An epoxy or vinyl-resin base coating 0.008 to 0.01 in. thick can prevent corrosion of a coated piece of immersed steel for several years. Other less permeable coatings, such as dense Saran (copolymer of vinylidene chloride and acrylonitrile), can prevent water penetration even if they are only 0.002 in. thick.

* Amchem Products, Inc., Niles, Calif.
† Dow Chemical Company, Midland, Mich.

C. Question

Realizing that a phosphoric acid curing agent was used, and that the members were barged from Vancouver to Portland, how soluble would the zinc be when exposed to atmosphere containing 30-50 parts per billion SO_2?

Answer

In order to demonstrate certain calculations, it is necessary to establish standard units for the amounts of SO_2 we are concerned with.

The 30-50 parts per billion is preferably converted to units of micrograms (1-millionth of a gram) per cubic meter ($\mu g/m^3$).

The following are the calculations:

a. 30-50 parts per billion = .03 - .05 parts per million (PPM).

Reviewing the sulfur dioxide charts on pages 2 and 3 of attachment #12, we can establish the relationship between $\mu g/m^3$ (chart on page 3) and PPM (chart on page 2). This relationship directly from the charts is: 0.20 PPM is equal to 500 $\mu g/m^3$. To convert PPM to to $\mu g/m^3$ you multiply the PPM by a factor of 2500 ($\frac{500}{.2}$ = 2500).

b. Check: .02 PPM x 2500 = 500 $\mu g/m^3$

The above 30-50 parts per billion or .03 - .05 parts per million is equal to 2500 x (.03- .05) or 75-125 $\mu g/m^3$.

To answer the question as to how soluble the zinc would be exposed to an atmosphere containing 75-125 $\mu g/m^3$ (30-50 parts per billion) of SO_2 we establish the following:

1. One gallon of Rust-ban 191 solids weighs about 50 pounds.

2. This amount (a solid gallon) covers approximately 1600 square feet of surface, 1 Mil (dry film) thick.

3. The weight of Rust-ban 191, one mil thick, per sq. ft. would be 0.0313 pounds (50/1600) or this calculates to 0.1 gram per sq. inch.

4. This amount of Rust-ban 191 contains 0.085 grams of zinc (85% by wt.).

5. The following chemical reactions show the formation of sulfuric acid on a mol or molecular basis:

a. SO_2 + H_2O = H_2SO_3 (sulfurous acid)
1 Mol 1 Mol 1 Mol
64 grams 18 grams 82 grams

*b. H_2SO_3 + 1/2 O_2 = H_2SO_4 (sulfuric acid)
1 Mol 1/2 Mol 1 Mol
82 grams 16 grams 98 grams

c. H_2SO_4 + $Z\mu$ = $Z\mu SO_4$ = $H_2\uparrow$ (Hydrogen Gas)
1 Mol 1 Mol 1 Mol 1 Mol
98 grams 65 grams 161 grams 2 grams

* Also written as: $3H_2SO_3 = 2H_2SO_4 + S + H_2O$

It is pointed out that about equal weights of sulfur dioxide (SO_2 : Mol WT = 64) and zinc metal (Mol WT - 65). In this instance, 1 Mol of sulfur dioxide (64 grams) ends up by reacting with 1 Mol of zinc (65 grams) through the sulfuric acid that is formed. Another way to look at this is that 32 pounds of sulfur "burned" in a process will produce 64 pounds of SO_2 which will react (deteriorate) with 65 pounds of zinc metal in the Rust-ban coating.

To react with the 0.085 grams (85,000 micrograms) of zinc, (1 Mil, 1 square inch of Rust-ban 191 film) it would require the following amount of SO_2:

d. For 75$\mu g/m^3$ (SO_2)

85/75 x 1000 = 1300 cubic meters of SO_2

e. For 125 $\mu g/m^3$ (SO_2)

85/125 x 1000 = 600 cubic meters of SO_2

From the above calculations, it requires 1300 cubic meters of 75 $\mu g/m^3$ SO_2 and 600 cubic meters of 125 $\mu g/m^3$ SO_2 to completely react with the zinc in 1 sq. inch of Rust-ban 191, 1 mil thick (dry film).

As indicated in the chemical reaction of "c" above, the zinc is converted to very water soluble zinc sulfate salt.

With a continuous supply of SO_2 at the amounts present in the Portland, Oregon atmosphere (and specifically at the Fremont Bridge site) it is simply a matter of time (if not further protected with topcoats) before the inorganic zinc coating slowly "washes away". These amounts of film loss can greatly exceed the general criterion of 1/2 - 1 mil loss or reduction of film thickness of inorganic zinc per year under direct and continuous water exposure (sea and fresh water). See attachment #13, page 2, item 6.

Attachment #13 page 1, also points out the suitability criteria for Rust-ban 191 as follows:

"Strongly acidic or alkaline products will attack Rust-ban inorganic zinc coatings. Acceptable limitations for normal service conditions are:

6.5 to 10.0 pH

Less than 0.4 neutralization number

Less than 300 ppm hydrogen sulfide content. (Hydrogen sulfide, like SO_2, will also react with zinc.)

Summary

It is apparent, from the above information, that a content of SO_2 in the atmosphere can quickly dissolve zinc in the inorganic zinc coating. The sulfurous acid, oxidized to sulfuric, reacts to form zinc sulfate. With condensations of moisture and rains, the very soluble zinc sulfate salts wash away, exposing new layers of inorganic zinc coating for SO_2 attack. Since the coating (inorganic zinc) is 85% by weight zinc, the film is also destroyed as the SO_2 "eats" away at the zinc. Also the SO_2 can react with lithium silicate or any of the lithium compounds, again forming soluble sulfates.

ATTACHMENT #12

DATA SHEET

RAINFALL & AIR POLLUTION - PORTLAND, OREGON

RAINFALL	WATER EQUIVALENT	SULPHUR DIOXIDE (mcgms/cu meter)
October 1970	2.85	13.1
November 1970	5.72	52.4
December 1970	7.49	70.7
January 1971	7.09	78.6
February 1971	3.36	60.0
March 1971	4.97 (1.37")	48.6
April 1971	2.72	41.0
May 1971	1.00	19.0
June 197	1.76	21.6

Rainfa verages

November, December, January	6.77"
ber to March 15	4.84"
h 16 to June 30	1.96"

land Airport

Sulphur oxide - Broadway & Burnside

Source formation - Sulphur Dioxide

Air Quality Control Division
Department of Environmental Control
Oregon State
1400 S.W. 5th Avenue
Portland, Oregon 97201

Contact Mr. Glen O'Dell

- 56

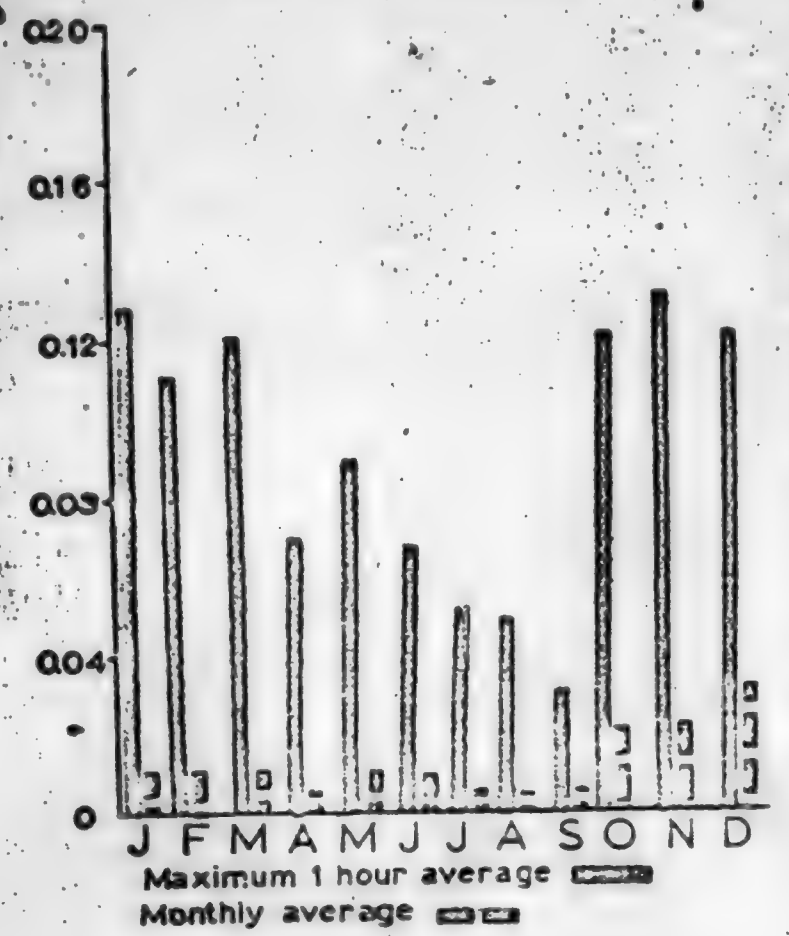
Rainfall

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Environmental Data Service

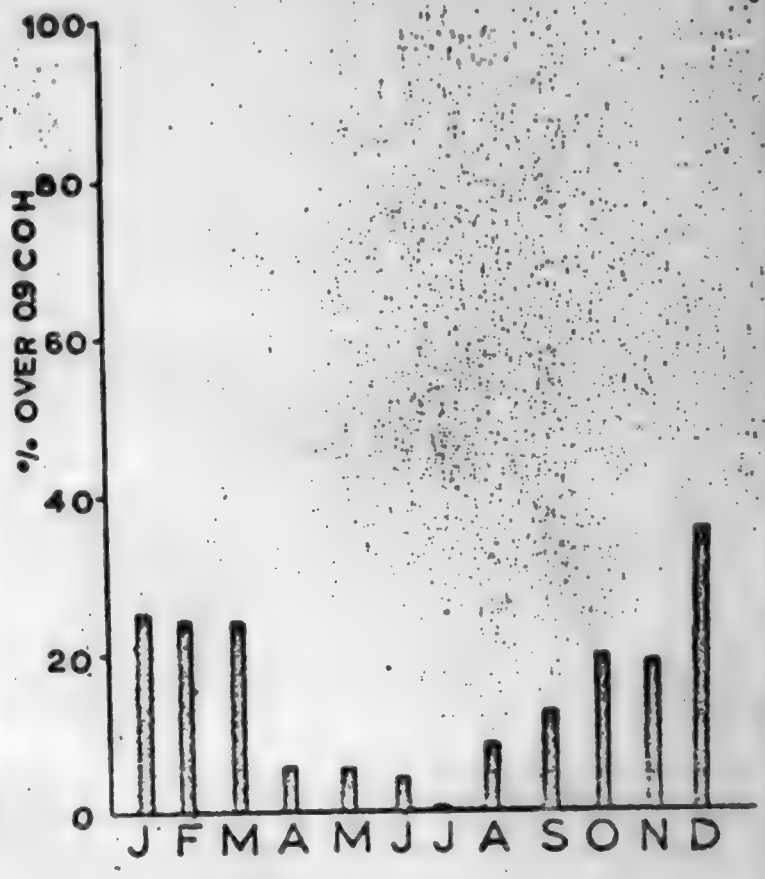
CONTINUOUS AIR MONITORING STATION
718 W. BURNSIDE
1970

PPM x 2618 = μg/m³

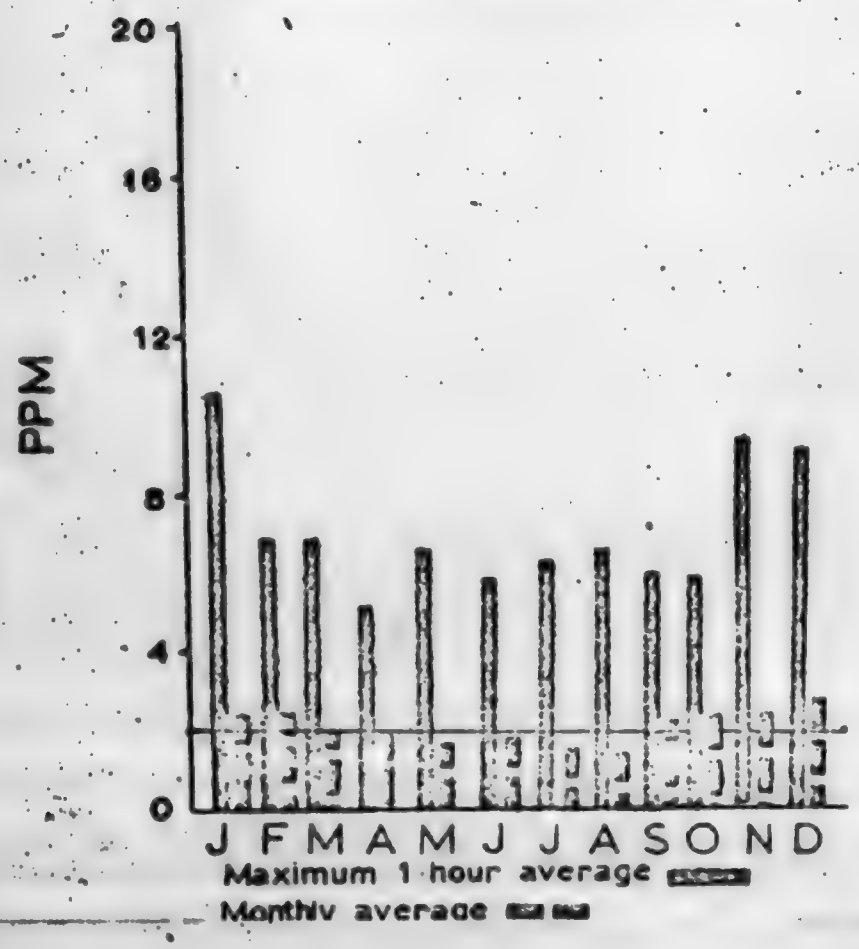
Sulfur Dioxide



Soiling Index

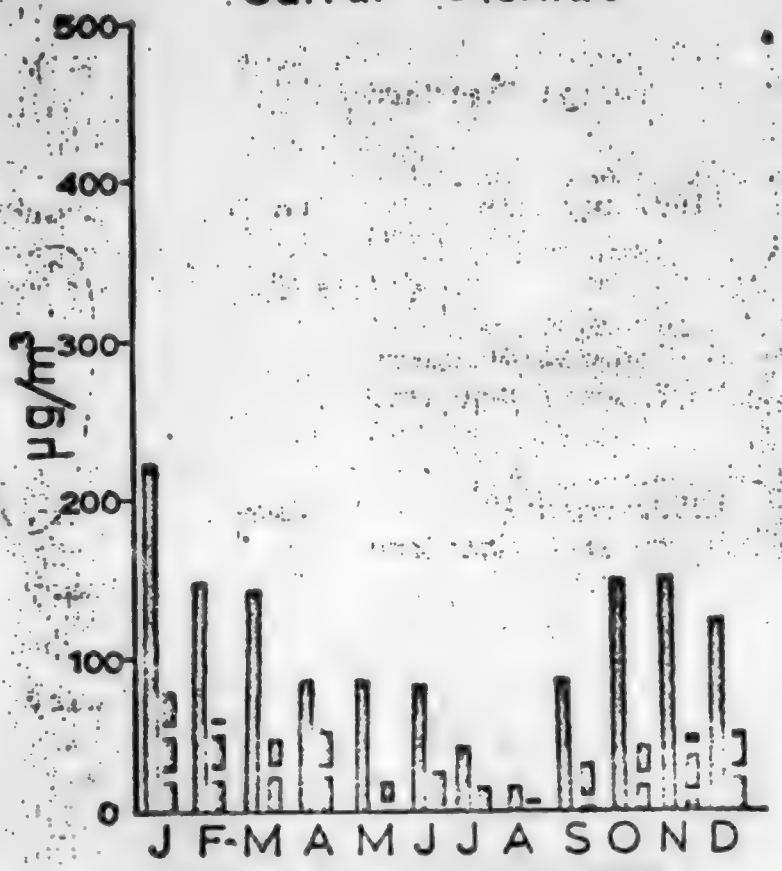


Total Hydrocarbons



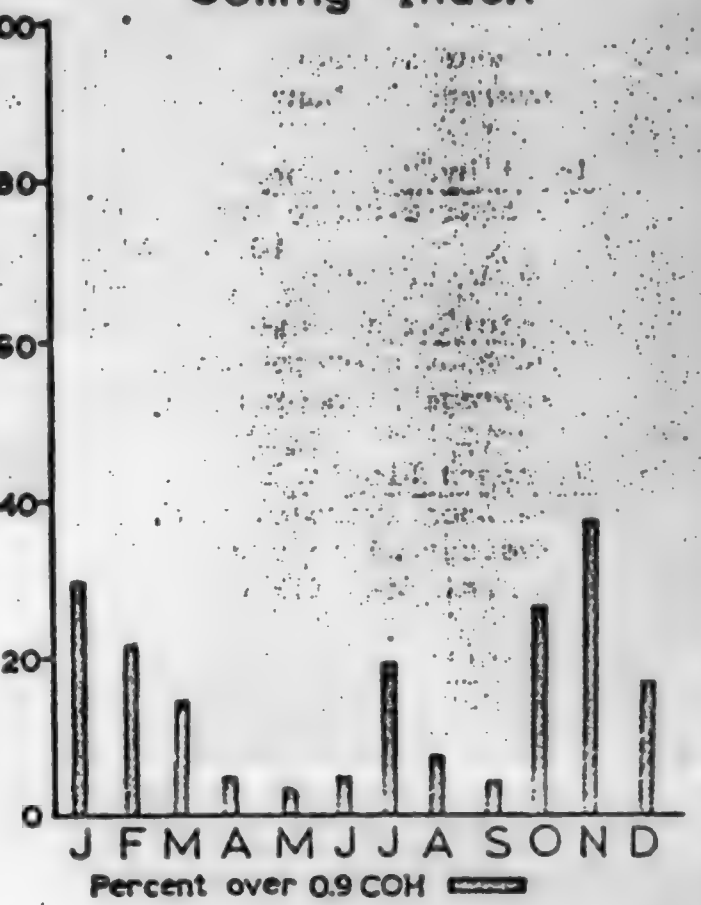
CONTINUOUS AIR MONITORING STATION
718 W. BURNSIDE, PORTLAND
1971

Sulfur Dioxide



Maximum 24-hour average
Monthly average
1970 Annual average: 34.1

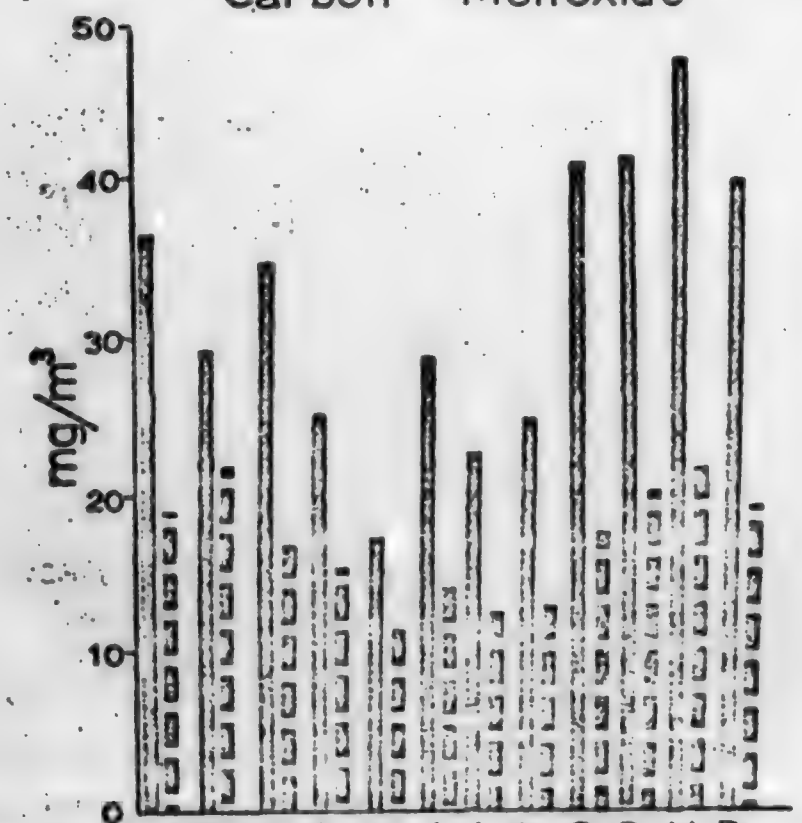
Soiling Index



Percent over 0.9 COH

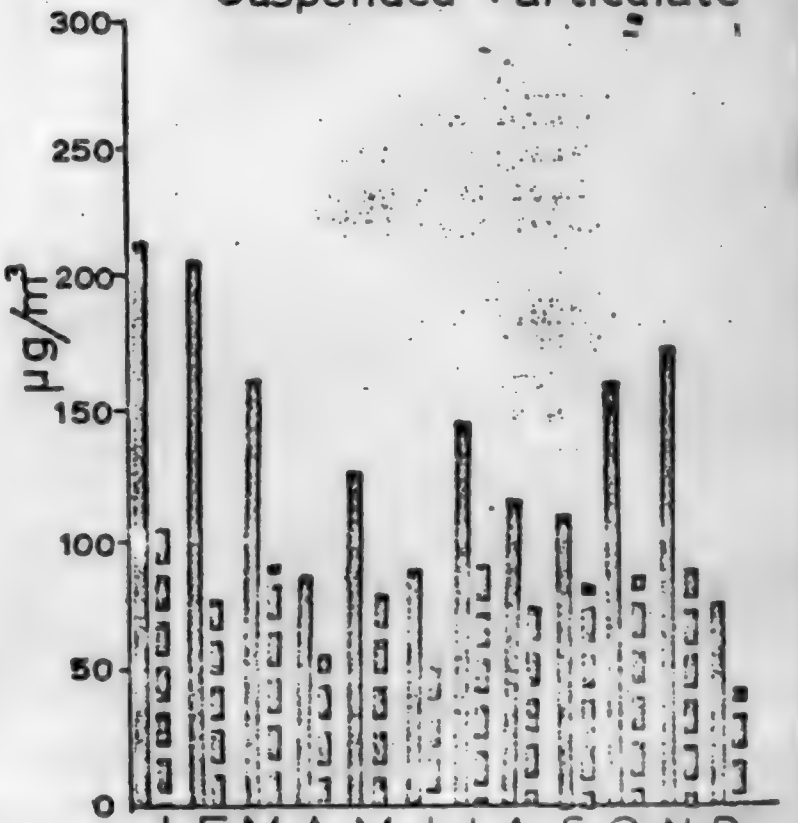
(Values Based On Standard Conditions)

Carbon Monoxide



Maximum 1-hour average
Maximum 8-hour average

Suspended Particulate



Maximum 24-hour average
Monthly average
1970 Annual Geo. Mean: 65.1

SPECIALTIES ENJAY

C

TECHNICAL INFORMATION BULLETIN

SUITABILITY TABLE FOR RUST-BAN INORGANIC ZINC COATINGS

RUST-BAN 190/195 - 191/195

GENERAL NOTES

The information presented in this "SUITABILITY TABLE" is for guidance of customers in determining the compatibility of RUST-BAN inorganic zinc coatings with petroleum, chemical and other liquid cargoes commonly encountered in the transportation field. The suitability ratings indicated are based on appropriate laboratory tests, actual field experience and other studies. Every effort has been made to assure the accuracy of the information presented. However, because of variations in manufacturers' specifications, widespread use of additives, etc. Enjay Chemical Company cannot assume any responsibility for the condition of the coating and/or the products carried or stored in RUST-BAN inorganic zinc coated tanks.

Strongly acidic or alkaline products will attack RUST-BAN inorganic zinc coatings. Acceptable limitations for normal service conditions are:

6.5 to 10.0 pH
Less than 0.4 Neutralization Number
Less than 300 ppm Hydrogen Sulfide Content

Infrequent and limited exposure to cargoes having acid/alkali values moderately beyond the acceptable ranges indicated above can usually be tolerated without significant damage to the coating. Contact your Enjay Representative for specific recommendations about performance of RUST-BAN inorganic zinc coatings in enviroments involving acidity/alkalinity conditions outside the acceptable limits.

The use of acidic or alkaline cleaning agents for washing RUST-BAN inorganic zinc coated tanks should be avoided.

OILS - WITH HIGH FREE FATTY ACID CONTENT

Free fatty acid content is the prime consideration in determining the suitability of vegetable oils and their derivatives. Generally, the raw oils covered in this table have low free fatty acid content - and accordingly are rated suitable for carriage in RUST-BAN inorganic zinc coated tanks. In cases where oils are known to have relatively high free fatty acid contents, (more than 2-1/2%) contact your Enjay Representative for specific recommendations. Appropriate laboratory testing may be necessary.

ICD-70-577

ENJAY CHEMICAL COMPANY
PARAMINS AND SPECIALTIES DIVISION
8230 STEDMAN STREET • HOUSTON, TEXAS 77029

(1) Products are suitable when kept dry. However, when chlorinated or brominated products contact moisture, they tend to split into free acids which gradually attack inorganic zincs after two weeks or more continuous contact.

(2) The suitability of denatured ethanol depends upon the denaturant used. Ammonium hydroxide denatured ethanol is definitely unsuitable.

(3) The suitability of animal, vegetable oils and fats is a function of free fatty acid content, temperature of the cargo, and exposure time. As a general rule, cargoes with FFA contents in excess of 5 "acid value" will cause gradual deterioration of inorganic zinc coatings at temperatures in excess of 100°F/38°C. It has, however, been noted that post-cured (with RUST-BAN 195) RUST-BAN 191 has significantly better resistance to these materials than does uncured coating. RUST-BAN inorganic zinc coatings do not contain lead which is susceptible to rapid and massive attack in the presence of most animal and vegetable oils.

(4) In general, sour crudes (hydrogen sulfide contents in excess of 300 ppm) with high (greater than 0.4) neutralization numbers gradually attack inorganic zinc coatings — especially if significant amounts of moisture are present. This is evidenced by selective rusting of tank bottoms, deckheads, and horizontal members. These selected areas can be protected by top-coating the inorganic zinc with Enjay Coal-Tar Epoxy EX 6692. Crudes with neut. numbers below 0.4 and hydrogen sulfide contents below 300 ppm are perfectly acceptable for inorganic zinc alone.

(5) Amine products of this type are generally acceptable for inorganic zincs unless moisture is present. With moisture, caustic solutions are formed, and coating failures can result.

(6) RUST-BAN 191 has excellent resistance to cyclic sea and fresh water exposure (including distilled water), but coating life is reduced (at the rate of approximately 1 mil per year) under direct and continuous water exposure. Under continuous immersion conditions, inorganic zincs are best topcoated with vinyls, epoxies, phenolics, or chlorinated rubber coatings.

(7) Coatings performance is acceptable; but product contamination has been noted and verified.

(8) For transformer oils, scrub away all loose zinc and wash out to eliminate alkalinity. Avoid water contamination of these oils.

The information contained herein is to the best of our knowledge accurate; but since the circumstances and conditions in which it may be used are beyond our control we do not accept liability for any loss or damage that may occur nor do we offer any warrantly of immunity against patent infringement.

D. Question

Your comments on an acceptable system. Is the following system sufficient?

Primer - Inorganic zinc - ethyl silicate (3 mils)
Stripe coat - Organic zinc (epoxy)

Vinyl wash primer (#117)
Vinyl Hi-build 80ku (3 mils) first coat
Vinyl Hi-build 80ku (3 mils) second coat

Answer

The above coating system appears to be somewhat complicated in respect to the so-called "stripe-coat" followed by the wash primer, #117.

A complete system which is quite classical is the following:

1 - Primer - inorganic zinc, ethyl silicate
2 - Vinyl wash primer, #117
3 - Vinyl hi-build first coat
4 - Vinyl hi-build second coat

Returning to the "stripe coat", organic zinc epoxy, there seems to be a redundancy. It is known to the art that zinc rich primers may be of the inorganic binder type or organic binder type and mixtures (some organic binder in the inorganic) these latter hybrids can contain polyvinylbutyral, for example, in with the ethyl silicate binder, using alcohol as the common solvent.

It doesn't appear necessary to apply an organic zinc epoxy over an inorganic zinc (ethyl silicate). Obviously, "anything can be done," but the logic of the coating system proposed is not self-evident. It would be more conventional to use instead a "normal" epoxy coating over the zinc-ethyl silicate.

Summary

The following coating systems are derived from the 5-coat system reviewed and proposed above; these systems are recommended instead:

	Dry Film
(A) Inorganic zinc-ethyl silicate	3 mils
Vinyl wash primer #117	0.5 - 0.75 mils
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils
(B) Inorganic zinc-ethyl silicate	3 mils
Epoxy primer - thinned, Mil-P-23236 or Navy 9190. Limited cure time so as to receive vinyl hi-build	1 mil (Max)
Vinyl Hi-build 80 ku	2 - 3 mils
Vinyl Hi-build 80 ku	2 - 3 mils

		Dry Film
(C)	Inorganic zinc - ethyl silicate	3 mils
	Epoxy primer, thinned, Mil-P-23236, or Navy 9190.	1 mil (Max)
	Epoxy intermediate, Mil - P - 23236 or Navy 9190	2 - 3 mils
	Epoxy finish, Mil - P - 23236 or Navy 9190	2 - 3 mils
(D)	Organic-zinc epoxy	3 mils
	Epoxy intermediate, Mil-P-23236 or Navy 9190	2 - 3 mils
	Epoxy topcoat	2 - 3 mils
		Min 8 mils

Also refer to attachment #7, "Topcoating Inorganic Zincs."

E. Question

Is Portland, Oregon's winter atmosphere deleterious to a water based inorganic zinc primer without a seal coat?

Answer

As previously reviewed under Question A-6 and A-9, for Rust-ban 191 (and 193) to cure the lithium silicate binder must be insolublized. In the atmosphere, with some humidity, the following reaction takes place:

a. Li_2SiO_3 + $2H_2O$ = $2LiOH$ + H_2SiO_3

Li_2SiO_3	$2H_2O$	$2LiOH$	H_2SiO_3
Lithium Silicate	Water	Lithium Hydroxide	Silicic acid

Then for curing to take place, the silicic acid has to dehydrate as indicated below:

b. $H_2SiO_3 \xrightarrow{\text{Dehydration}} H_2O + SiO_2$

SiO_2: Silicon Dioxide or Silicic Acid Anhydride

This over-simplification is not intended to detail the other complicated reactions that take place to form the complex iron-zinc silicate.

If the second reaction (b) or others which form the insoluble complex silicates, is not possible, then water soluble ingredients such as lithium silicate, lithium hydroxide, etc. can easily be washed away by rain or other condensation.

Besides the moisture which can be deleterious to such inorganic water base zinc coatings, there is the aggressive sulfur dioxide content of the winter atmosphere. The following SO_2 content was recorded in Portland, Oregon during Jan.-Mar, 1971:

	SO_2
January 1971	78.6 $\mu g/m^3$
February 1971	60 $\mu g/m^3$
March 1971	48.6 $\mu g/m^3$

As discussed in Question "C" above, these amounts of SO_2 along with moisture can be very deleterious to the inorganic zinc coating.

Summary

With the winter environment at Portland, Oregon identified as to high moisture, rain and SO_2 content, any inorganic water based zinc primer without a seal (sealer) or top coat will show definite increase in rate of diminishing of the coating film thickness, with rust finally breaking out in the damaged or deteriorated areas.

Also, it has to be postulated that the reason a certain member or area looks good, is because it was "lucky" since the aggressive environment didn't get to it yet.

F. Question

Should there have been a residue on the steel girders from a washing of the soluble salts caused by the Portland winter atmosphere?

Answer

The most soluble salts that could form on the steel girders would be the sulfates: zinc, lithium, and iron. This is assuming, of course, the presence of moisture and SO_2 in the atmosphere.

Dependent upon sequence, the zinc sulfate may or may not be present in amounts to collect for identification. The zinc sulfate (or lithium and iron) could be formed and washed away by rain. Or, the sulfate salt could be formed and localized mostly in the pores of the inorganic zinc silicate coating. Other less soluble salts and zinc compounds could trap some of the sulfates. Also, residual lithium silicate, phosphate, hydroxide and carbonate could also be converted to the sulfate.

G. Question

If your answer to "F." is yes, what evidence should there have been on the girders to indicate a residue.

Answer

The soluble sulfates normally would not form dense or ample white deposits like those formed when curing agents are applied over the Rust-ban inorganic zinc primer. Any surface sulfate would probably be washed away by rain or/other condensations. Probably, fresh water washes and recovery of several of such washes would permit chemical identity of the presence of sulfate.

H. Question

Would use of small test panels be indicative of reaction of paint on large panels?

Answer

In my studies relating to surface profiles of abrasive blasted surfaces and corrosion, the following observations have been made:

A small test panel 4" x 6" x 1/8", was divided into four equal areas and sandblasted with different sieve size abrasives such that four profiles were obtained. Also these studies included the occlusion of shattered sand within the valleys and the effect of this on corrosion.

The prepared panel was layed flat on a laboratory work bench and subjected just to the laboratory environment. In about two days, corrosion was observed on the panel. The sequence of corrosion and amount was directly proportional to the roughness of the surface, thus exposing more surface per unit area, and the amount of occluded sand particles in the depressions.

It is thus demonstrated, that even on the same panel, the environment can act differently on the various areas. It follows, two panels of identical size with some surface differences will perform differently when subjected to an exposure or environment.

A classical example of my experience is the varying performances of two identical 10" x 12" x 1/8" mild steel panels, spray painted identically, with the same continuing spray passes, and immersed in sea water side by side performed differently.

Now going to two size panels, the variations can be further amplified. A test panel (small) versus a steel girder obviously would present a case of two distinctly different surfaces.

In the first instance, the mass of the two surfaces is vastly different. This means the heat capacity of the two would vary greatly. The panel would heat up and cool off rapidly. The steel girder would heat and cool slowly. A pool of water, for example, would evaporate at different rates from the panel and girder. This would result from the varying heat contents and the varying air currents around the two surfaces.

Because of varying heat contents, varying rates of heating and cooling, and varying masses, rates of expansion and contraction would be different of the two surfaces. Coatings on these surfaces would experience different stresses under the various environmental actions.

Summary

Small test panels can at best be compared to each other and more exactly to each other if they are the same size. Such panel tests are good for screening purposes. The performances of massive girders and small panels normally would not be compared directly.

I. Question

What effect would result from increasing the zinc content to 85%.

Answer

The specification, for the Fremont Bridge, covering the properties of the mixed inorganic zinc silicate primer "already" requires a minimum zinc pigment content of not less than eighty-five (85%) percent, by weight of the total non-volatile content.

Under Question A, previously answered, the question on insufficient pot agitation may be responsive to this question. The resulting applied inorganic zinc coating would be quite variable. The zinc content, because of poor agitation and settling of the zinc pigment, would vary. The first sprayed material would be "richer" - more than 85% - in zinc and the subsequent applied coating would contain less zinc. The properties would vary accordingly. The coating with excessive zinc would be dry, porous and irregular - the low zinc would show up as a glossy, flooded, poorly adhering or even layering type of deficiency.

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J. Question

1. Was a tie-coat necessary after the application of the zinc primer?

2. Was a seal-coat necessary after the application of the zinc primer?

3. Was a wash primer necessary after the application of the zinc primer?

Answer

First of all let us define the above terms: "tie coat", "seal-coat" and "wash coat".

A. Tie-coat

A "tie-coat" is a coating material that permits two coatings that are not compatable with each other - i.e., don't "stick" to each other - to become compatable in the complete coating system. In the present situation, a "tie-coat" is a coating or coating material that will permit the first coat of the hi-build vinyl to "stick" to the inorganic zinc primer. The "tie-coat" is the "sandwich spread" that holds the two pieces of bread together. As previously discussed, such a "tie-coat" could be the #117 wash primer or as it is technically designated as "pretreatment coating." Another "tie-coat" could be a thinned version of the hi-build vinyl or thinned Navy #119 (if applied to a rough and porous inorganic zinc coating). Other"tie-coats" could include epoxy, silicone, phenolic, and chlorinated rubber coatings.

2. Seal Coat

"Seal coat" may be defined as a "sealer" or "sealer coat". *

The use and function of a sealer coat may be best illustrated by the "knot sealer" for wood surfaces. In this case, the sealer consists of an alcohol solution of a phenolic resin and a polyvinylbutyrol resin. The coating is applied directly over the knot in the wood. The result is that the rosin in the knot is sealed and it will not migrate into subsequent top coats.

Another common use of a "sealer coat" is for application over asphalt paving. The "sealer" locks the asphalt under so that it cannot migrate to the surface, for example, and stain white traffic paint that has been applied. (The traffic may be of the "sealer coat" type.

In the usage with inorganic zinc primer, a "seal coat" or "sealer" locks the zinc in so that aggressive environmental factors cannot conveniently get to the zinc.

In an additional use of the "sealer", it penetrates into the normal pores of the inorganic zinc primer, seals the pores — fills them up — and provides a barrier between the inorganic zinc primer and the atmosphere.

* From Organic Coating Technology. Vol II, Payne.

K. Question

Does rust "stain" which has been deposited from an unpainted area such as the top flange have a detrimental effect on the zinc primer and/or the finish coat?

Answer

The rust stain should have no effect on the vinyl finish coat except to discolor it. The effect of the rust on the inorganic zinc primer is something else. After the rust was washed down by rain or other condensation, it entered into an oxidation-reduction chemical reaction with the zinc.

The half-cell reactions from the electromotive series of metals includes the following pertinent ones:

		Potential (Volts)
1.	$ZN \longrightarrow ZN^{++} + 2E$	+ 0.763
2.	$FE \longrightarrow FE^{++} + 2E$	+ 0.441
3.	$FE^{++} \longrightarrow FE^{+++} + E$	— 0.770

Two reactions are possible involving the above three half-cell reactions:

(A) 1.	$ZN \longrightarrow ZN^{++} + 2E$		+ 0.763 volts
3.	$FE^{++} \longrightarrow FE^{+++} + E$		— 0.770 volts

Net reaction (subtract 3. from 1.)

$$ZN + 2\,FE^{+++} = ZN^{++} + 2\,FE^{++} + 1.533 \text{ volts}$$

Here, the iron rust, FE^{+++} (ferric ion) reacts with the zinc of the Rust-ban inorganic zinc primer to produce (deteriorate) zinc ion, ZN^{++}, and ferrous ion, FE^{++}. The electromotive force (volts to drive the reaction is + 1.53_4 volts.

The next reaction that occurs is:

(B) 1.	$ZN \longrightarrow ZN^{++} + 2E$		+ 0.763 volts
2.	$FE \longrightarrow FE^{++} + 2E$		+ 0.441 volts

The net reaction is:

$$ZN + FE^{++} = ZN^{++} + FE \qquad + 0.322 \text{ volts}$$

These reactions are the typical or classical cathodic protection reactions in which zinc metal is sacrificed to protect the steel. These sacrificial actions are to change ferric iron (FE^{+++}) to ferrous (FE^{++}) and then to change ferrous iron (FE^{++}) to iron metal (FE).

3. Wash Primer

The term "wash primer" was derived from the practice of washing a steel structure, after erection, with dilute aqueous solutions containing phosphoric acid, alcohol or other water miscible organic solvents and an inhibitor (rust inhibitor). Such washes serve to convert the rust to a relatively harmless and well-anchored phosphate.

The present wash primer (MIL-P-15328, Formula #117) embodies the phosphoric acid, alcohol and inhibitive pigment, zinc chromate. The binder or vehicle is an alcohol solution of polyvinylbutyrol resin. Applied to a steel surface, it prepares the surface by a complicated series of chemical reactions that promote adhesion for successive top coatings. For example, wash primer (known technically as pretreatment coating) applied to a sandblasted surface will "accept" the red lead vinyl, Formula #119 (MIL-P-15929). Without the #117, the red lead vinyl would have no adhesion to the steel. This, however, does not exclude the fact that there are certain vinyls that can "stick" directly to the steel.

Also, it has been the practice to use #117 wash primer over inorganic zinc coatings. As related before, because when the two components of #117 are mixed, there still remains some free phosphoric acid. So, when #117 is applied over say Rust-ban #191 (without having curing agent #195 applied), the #117 can serve as a curing solution as well as "sealer coat" and "tie coat".

The term wash primer may refer specifically to a pretreatment coating for application over steel, aluminum and galvanized steel (zinc), but its uses have spread to include it being used as a tie-coat, seal coat, cure solution and a metal conditioner.

In the trade, "tie-coat" and "seal coat" may or may not be synonymous. It depends on how the material is used and what it is. The wash primer #117 embraces both the "tie-coat" and "seal-coat" besides being in itself a metal conditioner.

Wash coat, #117, cannot be used as a top coat or barrier coat. Within about 24 hours, it must be topcoated with a typical barrier topcoat such as epoxy, vinyl, silicone, chlorinated rubber, etc.

Summary

After the application of the inorganic zinc primer, a "seal coat" and/or "tie-coat" was necessary. The "wash coat" (117) would have served both catagories and in that sense, if selected, it was necessary. However; due to its particular composition, it too requires added protection from the atmosphere. The first coat hi-build vinyl, applied within 24 hours of the application of #117, over the wash primer would serve as the barrier required.

Period	Sulfur Dioxide µg/m^3	Water Equivalent
Jan 1971	78.6	7.09
Feb 1971	60.0	3.36
Mar 1971	48.6	4.87

The girders were subjected immediately to high SO_2 and water impact. With no time to build-up some of the normal protective salts, such as normal carbonates, to seal some of the pores, accelerated atmospheric SO_2 and water attack too place. Such attack could greatly dimish film thickness, as observed.

The zinc ions (ZN^{++}) then form the various zinc salts and products: sulfates, phosphates, carbonates, etc. With rain and other condensations, the salts can dissolve (if soluble in water) and wash away or be washed by mechanical wearing action of the rain. In this way, new zinc is exposed for a repeat of the above sacrificial reactions. The free iron formed from the net reaction of (B) can rust by the atmosphere and start anew the whole deterioration process of zinc (and the lithium silicate end products).

L. Question

The longitudinal girders on unit WS-1 of the East Fremont showed very thin primer when checked less than 90 days after painting. Please explain, after considering the following factors:

Answer

According to available information during the application of Rust-ban 193 and 195 cure solution, the temperature in the Canron plant was stated as being held between 70-80°F with a relative humidity of 30-50%. The film thicknesses were checked by wet film measurements, (I assume dry film measurements at those measured areas was also checked) and were determined to be at least 3 mils. This then appears to eliminate a point of consideration which is contained in Attachment #14.

On page 2, 3rd paragraph, the following is stated: (Following this from above paragraph: "it (#193) can easily be applied by spray at temperatures ranging from 40°F to 140°F.)

"At the upper temperature levels, Rust-ban 193 can be applied to a dry film thickness of 3-5 mils in one coat. At lower temperature levels, it may become necessary to apply two coats of Rust-ban 193 in order to obtain 4 dry mils..."

Apparently, from time above, at low temperatures only a maximum of 2 dry mils of 193 can be obtained per coat. This was not the situation at the Canron plant where it has been stated the temperature was held at 70-80°F.

The coating thicknesses taken 90 days after the application of Rust-ban 193 (+195 cure solution) showed 1 mil average on the interior surfaces of the box beams and 2 mils for exterior surfaces. This cannot be explained on the basis of deficiency in the application process since all factors were controlled, inspected and certified. There remains only the uncontrolable environmental factors at the Fremont Bridge site.

The 4' diameter areas of pinhole rusting would be the normal rusting pattern. Penetration and deterioration would follow a droplet distribution coinciding with moisture droplet distribution on a surface (horizontal). Vertical surfaces would display flow pattern with gravity plus droplet corrosion pattern. All rusting that appears would coincide with water droplet distribution and porosity in the Rust-ban inorganic zinc coating.

The girders were shipped Jan-Feb. 1971 and film thicknesses taken in March 1971. A review of the environmental factors during this period show the following:

SPECIALTIES ENJAY

ATTACHMENT #14 PAGE 1

TECHNICAL INFORMATION BULLETIN

RUST-BAN 193

INORGANIC ZINC COATING

RUST-BAN 193 is an inorganic, self-curing, zinc silicate coating. Its unique formulation results in outstanding adhesion -- even to smooth, clean or "pickled" steel while still maintaining the advantages associated with water-based inorganic zinc-rich coatings. RUST-BAN 193 is non-flammable and offers:

- Excellent adhesion
- Exceptional abrasion resistance
- Outstanding corrosion resistance
- Self-curing mechanism
- Application at 40-140°F temperature
- Spray or brush application
- Five-day pot life
- Variety of topcoats
- Fire resistance
- Solvent resistance
- Cleanup of equipment with water
- Cathodic protection

RUST-BAN 193 has been tested extensively during the past four years under a wide variety of environmental conditions. These exposures include ships' decks, ship side shells, barges, refinery and chemical plant storage tanks, as well as numerous structural steel members. RUST-BAN 193 can be used over sandblasted, "pickled", or mechanically-cleaned steel. It is particularly useful as a touch-up primer since it adheres well to coatings adjacent to the repair area.

Typical applications of RUST-BAN 193 are as follows:

Industrial	Marine
Steel Storage Tanks	Preconstruction priming
Structural steel	Decks
Heavy equipment	Hulls
Railroad cars	Terminals

SURFACE PREPARATION

RUST-BAN 193 performs well over commercially-blasted, chemically-cleaned, shot-blasted, or power tool cleaned metal surfaces.

ICD-69-567

ENJAY CHEMICAL COMPANY
PARAMINS AND SPECIALTIES DIVISION
8230 STEDMAN STREET • HOUSTON, TEXAS 77029

However, as is true with all high-performance coatings, optimum performance will be obtained with optimum surface preparation; i.e., white or near-white metal abrasive blasting.

APPLICATION

Unlike many other inorganic zinc coatings, RUST-BAN 193 is not susceptible to mudcracking, dusting, or flashing ... even when applied upon hot metal surfaces. It can easily be applied by spray at temperatures ranging from 40°F to 140°F.

At the upper temperature levels, RUST-BAN 193 can be applied to a dry film thickness of 3 - 5 mils in one coat. At lower temperature levels, it may become necessary to apply two coats of RUST-BAN 193 in order to obtain 4 dry mils. Except as noted above, application and curing properties of RUST-BAN 193 are similar to those of other water-based inorganic zinc silicate coatings, such as RUST-BAN 191.

Suitable spray equipment is as follows:

Paint Gun	Fluid Tip Orifice Size	Fluid Tip	Fluid Needle	Air Cap	Suggested Line Pressure
DeVilbiss PMBC 510	0.070	AV-601-E	MBC-444-E	MB 4039 #64	30 PSI
Binks #18 or #19	0.070	66	65	63 PE or 63 PB	30 PSI

MIXING

In mixing, the zinc dust should always be stirred into the liquid component. Agitation must be slow to avoid foaming. When thoroughly mixed, RUST-BAN 193 should be strained prior to use. During application, continuous - though slow - agitation of the coating in the pressure pot is required. Although RUST-BAN 193 has a pot life of five days, it should be restrained if the mixed coating is stored longer than eight hours.

TOPCOATS

Suitable topcoats for RUST-BAN 193 include epoxy ester, catalyzed epoxy, vinyl acrylic and latex paints. Alkali sensitive coatings such as oleoresinous and alkyd types should not be used. Consult your Enjay sales representative for specific topcoat recommendations.

Optional: Once the RUST-BAN 193 film is completely dry, a thorough washing with fresh water will improve topcoat performance by sealing up micropores in the film and removing excess alkalinity.

EQUIPMENT CLEAN-UP

Good painting practices dictate that spray equipment be cleaned at the end of each period of use or for shutdowns in excess of 30 minutes. Clean, fresh water is all that is required for clean-up.

TYPICAL PHYSICAL PROPERTIES OF RUST-BAN 193

Pot Life @ 75°F, Hours	120
Viscosity No. 4 Ford Cup, Sec.	13 - 16
Density - lbs./gal.	26.4
Flash Point	Non-flammable
Practical Coverage @ 3 mils dry film thickness; sq.ft./gal.	175 - 200
Solids by Wt. %	85.5
Solids by Vol.* %	62

* As determined by wet film/dry film technique

9-24-69

M. Question

The structural steel in unit WE-1 of the West Fremont, which was primed with Rust-ban 191 and "self-cured" was still in good condition after 17 months of exposure. Please explain after considering the following factors:

Answer

The answer to the above question is actually "built-into" the question. It is evidence that the "self-cured" Rust-ban 191 actually "self-cured". To "self-cure" the atmospheric factors must be such that the cure can take place. Protective "pore filling zinc compounds and the "proper" forming of zinc-iron silicate complexs were permitted to form. In other words, environmental impact was low or relatively ineffective as far as being destructive is concerned.

Once the full natural cure of Rust-ban 191 had time to take place, and protective compounds (not necessarily soluble when compared to sulfate) formed and filled the pores, the aggressive factors of Jan-March, 1971 that impacted on the girders of Question "L", did not display the same impact on these (M) girders.

The following atmosphere factors were reported for July through October 1970 (A 4-months period when aggressive factors were at a minimum, allowing Rust-ban 191 time to self-cure.

Date	Sulfur Dioxide $\mu g/m^3$	Water Equivalent
1. July 1970	14.25	--
2. Aug. 1970	14.25	--
3. Sept. 1970	14.25	--
4. Oct. 1970	13.1	2.58

From the above data, it is evident that the most aggressive factor, SO_2, in the atmosphere was at low recorded values during the period the Rust-ban 191 was "sell-curing.

The loss of 0.8 mils of thickness appears normal then for the period of less aggressive environment; and during the critical "self-curing" period of say from July through October, 1970.

N. Question

According to surveys by the resident engineer on the Fremont Superstructure, the primer there is not deteriorating at a rate faster than we would expect. This steel was painted in San Francisco with Mobil Zinc 1, self-cured, and has been stored in Portland since the fall of 1970 with a loss of approximately 1/2 mil. The resident engineer feels that the rusty areas you have observed were never properly coated. Could you give us some insight as far as this is concerned?

Answer

In the application of any protective coating, there is always the possibility of improper coating. However, I cannot accept, without some facts to back it up, that the rusty areas of the Mobil Zinc #1 were due merely to improper application. As we have discussed, there are aggressive environmental factors at work at the Portland Fremont Bridge area. I place more importance on the sequence of environmental events that the superstructure steel was subjected to (I have to assume this steel was checked for conformance - proper application and proper film thickness - why shouldn't it have been checked?)

The San Francisco area probably had less aggressive atmospheric factors than the Portland area. Again, because of the success of the self-cure action of Mobil Zinc #1, the environment was conducive to the self-cure and was so accepted. Had this not been the case, some means of inducing cure may have been provided.

It may be repetitious to say, once the inorganic zinc coating has cured and has demonstrated ability to self-cure under those conditions, it probably has more resistance to aggressive environmental action. It must also be considered that aggressive attack is not uniform over this girder surface.

O. Question

We have been told that the distance between the paint gun and the steel surface is very critical with inorganic zinc primer. Would you comment on this?

Answer

Under Question "A", previously answered, parts (10) [the gun being held too close to the steel] and (11) [the gun being held too far from the steel] were reviewed indicating in each case the properties of the resulting applied inorganic zinc coating.

It is true that an important factor in spraying is to hold the gun at the proper distance from the steel. (With all controls and settings also properly adjusted.)

In review, if the spray gun is held too far from the steel surface a very porous, granular and possibly dusty film results. In contrast, if the gun is held too close to the surface, there will be excessive material applied to the surface. This will be identified as "flooding". Also the resulting inorganic zinc coating can take on an "orange-peel" texture, or other waviness, being forced into such patterns and said to be "air rippled".

P. Question

We would appreciate any comments you might have in regards to selection of a thickness gage for this type of work.

Answer

The micro-metrics Tooke Gage is an accurate devise, but the method calls for film destruction.

Attachment #15 describes the General Electric Type B thickness gage, the "Elcometer" thickness gage and the General Electric Permanent Magnet Thickness gage. All three of these are the "non-destructive" type.

I have personal experience with the first two. The G.E. electric Type B requires a source of electricity (110 V.) It is rather heavy but could be adapted (used) for field conditions. It is quite accurate.

The "Elcometer" is a permanent magnet pocket size type of thickness gage. Both gages should be calibrated just prior to use.

ATTACHMENT #15

$$\text{Specific gravity} = \frac{1 + \text{Twaddell reading}}{200}$$

$$\text{Specific gravity} = \frac{145}{145 - \text{Baumé reading}}$$

(2) Acid concentration-Dilute 5 ml. of pickling solution with 50 ml. of water in a porcelain dish. Add 2 grams of unadjusted sodium hexametaphosphate and stir until it is dissolved. Add 3 drops of methyl purple indicator and titrate with standard 0.5 normal NaOH solution to appearance of gray-green color. Percent sulfuric acid (by volume) = ml. NaOH x normality x 0.574.

(3) Percent iron-To 5 ml. of pickling solution, add 50 ml. of water and 5 ml. of dilute phosphoric acid (1:1) in a porcelain dish. Titrate with standard 0.1 normal potassium permanganate until a faint pink color appears.

$$\text{Percent iron (by weight)} = \frac{1.117 \times \text{ml. } KMnO_4 \times \text{normality}}{\text{Specific gravity}}$$

b. Water rinse (Bath 2)-Methods of analysis described above may be used.

c. Rust-inhibiting solution (Bath 3) Rapid control tests of the sodium dichromate concentration may be made with the Klett-Summerson (or similar) colorimeters, comparing the transmission data with curves obtained by measurements with known concentrations of sodium dichromate and phosphoric acid. For control purposes, it may not be necessary to measure the concentration of phosphoric acid, since it is depleted at essentially the same rate as the sodium dichromate.

SECTION III. METHODS OF APPLICATION

Part 1. General

9190.41 FILM THICKNESS OF PAINTS

Knowledge of the thickness of dry paint films is of value to assure that coatings are of adequate thickness and are not excessively thick to cause early failure. Recommended dry-film thickness per coat of paint (for metal surfaces) and the approximate spreading rate (sq. ft. per gallon) which will give that thickness as follows:

1. Formula 117 - 0.5 mil at 220-230 sq. ft. per gallon.
2. Formulas 20, 30 and 104 - 1.5 mil at 295-305 sq. ft. per gallon.
3. Formulas (84 and 84D) - 1.5 mil at 310-320 sq. ft. per gallon.
4. Formulas, 20L, 42, 116, 116D, Haze gray TT-E-490 1.5 mil at 325-335 sq. ft. per gallon.
5. Formulas 5L, 5N, (5-0), 6, 23, 24, 38, 39, 40, 41, 46, 109, 111 and TT-E-00490-1.5 mils at 340-350 sq. ft. per gallon.
6. Formula 43-1.5 mils at 375-385 sq. ft. per gallon.
7. Formulas 119, 120, 122 - 1.5 mils at 145-160 sq. ft. per gallon.
8. Formulas 124, 125, 126 - 1.5 mils at 365-375 sq. ft. per gallon.
9. Formula 121-2 mils at 185-195 sq. ft. per gallon.
10. Formula 129-2-2 mils at 235-245 sq. ft. per gallon.
11. Formulas 105 & 146/50-3.5 mils at 120-130 sq. ft. per gallon.
12. Formula 34-5[illegible]s at 125-135 sq. ft. per gallon.
13. Formula 15 I[illegible]-30 mils at 30-35 sq. ft. per gallon.

9190.42 MEASUREMENT OF FILM THICKNESS

Several measuring devices are available for determining paint film thickness. These include the following:

1. General Electric Type B Thickness Gage. The General Electric Type B gage is a rugged, reasonably portable instrument operating from a 115-volt, 60-cycle power supply. It operates on a magnetic principle and can only be used to measure coatings on a magnetic substance. The instrument is rapid and easy to use and can be used on slightly curved as well as flat surfaces. In practice, it is necessary to standardize the scale with a foil of known thickness on a bare area of the same thickness and type of surface as the one on which the measurement is being made, as different surfaces will give different readings. Measurements should not be made close to edges and corners as this will cause variations in the readings. The accuracy of the result varies with the thickness of foil used to standardize the instrument. For best results, the standardizing foil should be close to the actual thickness of the paint film being measured.

2. "Elcometer" Thickness Gage. The "Elcometer" thickness gage (different ranges available) is a light, portable instrument, fitting readily into a coat pocket. It is operated by means of the variation in magnetic force between the metal surface (which must be magnetic) and a self-contained permanent magnet. No outside source of power is necessary to operate the instrument. Measurements can be made on slightly curved surfaces. To operate the instrument, it is necessary to first standardize the dial over a bare area of the same type and thickness of metal as that on which the coating is to be measured. It is important for accuracy to hold the meter in the same plane when taking the measurements as when set to zero. The results obtained will be satisfactory for most purposes for which field measurements are made, providing the necessary precautions are taken in its use.

3. General Electric Permanent Magnet Thickness Gage. This gage is a portable, self-contained gage with a dual scale. The low scale covers the range from 0 to 7 mils and the high scale from 1 to 60 mils. The instrument is also provided with a "go-not go feature" which can be set for a minimum and maximum thickness.

Part 2. Brush Application

9190.51 EQUIPMENT

Many types of brushes are carried in stock listed in Federal Supply Catalog (Department of Defense Section), FSC Group 80. Each brush is made for a particular purpose, and for best results, the right brush for the job must be used. (See Naval Ships Technical Publication Number 17.) The Revised Master List, Part III, contains the allowances of paint brushes for all ships.

9190.52 TECHNIQUE

1. Work paint well into brush before starting to apply.
2. The brush should be dipped into paint not over halfway up the bristles and excess paint removed by patting the brush gently on the side of the can and not on the top. In

Q. Question

Your opinion of the cause of the loss of the inorganic zinc primer.

Answer

All of the items discussed in Question A through P certainly have bearing on the problem of the loss of inorganic zinc film thickness (and corrosion appearing) at the Fremont Bridge site. Obviously if the coating materials are not properly mixed, properly applied, properly cured, its performance will diminish. Because of guidance and inspection points set up in coating these steel parts, I don't think the major factor of the failure lies in the above type of deficiency or error. I believe there is a fundamental cause for the failure and that is the aggressive atmosphere at the bridge site. These aggressive factors were listed as moisture - rain and other condensations - and SO_2. Nothing in Questions B through P has been pointed to the cement plants which put out very alkaline dust particles. These too can be aggressive to the inorganic zinc coating.

Summary

The entire problem of the failure would have definitely been eliminated if the Rust-ban inorganic zinc had some sort of organic barrier or topcoat, (sealer, tie or whatever) applied over it prior to being subjected to the Fremont Bridge site.

# #

RECEIVED
OCT 2 - 12

FOR FILING

OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO G. L. Green, Acting Division Engineer
~~R. E. Simpson, Division Engineer~~
Federal Highway Administration

DATE October 2, 1972

FROM ORIGINAL SIGNED BY R. D. ASBURRY
L. H. Young
Programing Engineer

Federal Aid Project No. I-405-8(23)304

SUBJECT Request Change Order Approval

Contract 7311, Extra Work Order No. 15

Project East Fremont Interchange, Unit B

Highway Stadium Freeway

County Multnomah

This order covers the cost of furnishing and installing a chain link gate in the right-of-way fence at Station "WN" 311+00 to provide access to a traffic counter location.

Copies of the Engineer's letter of explanation are attached.

This work was tentativley recommended for approval by the Federal Highway Administration Area Engineer August 29, 1972.

Your approval as of August 29, 1972 is requested.

Attach.

BMW:dg

RECEIVED
STATE HWY ENGR
SEP 28 '72
REFER TO
FOR
Info Action Approval Per File
NOTED
A. E. JOHNSON

RECEIVED
FOR FILING
7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 26, 1972

To: Walter Hart
Bridge Engineer
Salem

SUBJECT: John Saroyan's Report on
Zinc Paint Failure
East & West Fremont Approaches

NOTED
TOM EDWARDS

Your letter of September 20, transmitted a report by John Saroyan relative to a series of questions which had been submitted to him with respect to the zinc paint problem on the Fremont approaches. You requested our review of this document by Mr. Saroyan and any comments we might have.

In order to better examine this report, I separated it into two parts ---- (1) those questions and answers which deal with the blasting of the steel and the mechanics of getting the paint onto the girders which is covered by all questions except No.'s 6 and 9 and (2) those questions (6 and 9) which deal with events which occurred after the paint was applied and which might help explain the zinc problems.

Tabulated below for easy reference are the first set of questions dealing with the mechanics of painting. That column shown as "Evidence" was taken from Mr. Saroyan's report and the column entitled "Help Explain Problem" is my evaluation of Mr. Saroyan's answers.

	Cause	Evidence	Help Explain Problem
1.	Excessive blast profile	Course, rough, surface	Yes
2.	Insufficient atomization pressure	Orange Peel & Lack of adhesion	No
3.	Insufficient pot pressure	Granular, dusty, dry, porous coating	Yes
4.	Inadequate Agitation	(a) course, highly pigmented dull areas (b) very glassy, smooth areas (c) areas between (a) and (b)	Yes
5.	Excessive agitation	Modeled, spotty paint film This answer mentions cure solution RB 195. This was not used on RB 191.	Yes

RECEIVED
SEP 27 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

Cause	Evidence	Help Explain Problem
7. Excessive atomization pressure	Granular, dusty, porous film	Yes
8. Excessive Pot Pressure	Orange Peel and Lack of Adhesion	No
10. Gun too close to steel	Orange Peel and Lack of Adhesion	No
11. Gun too far from steel	Granular, dusty, porous film	Yes

You will note that my evaluation of answers (2), (8) and (10) is that these causes would not help explain the zinc paint problem. The reason for this conclusion is that the "Evidence" as given by Mr. Saroyan for these three causes is "Orange Peel" paint surface and lack of adhesion. To the best of my knowledge, orange peeling and lack of adhesion has never been mentioned as a problem with the 193 zinc paint. The evidence and effect given by Mr. Saroyan in the answers to the other questions in this first catagory (questions (1), (3), (4), (5), (7) and (11) do suggest that these causes could be contributors towards the zinc paint problem. However, it is my personal opinion that these probably did not play a very large role in contributing to the problem. All the "Evidence" listed is manifested in a very poor-appearing paint job. If we had any paint inspection at all in Vancouver, and I'm sure we did, the inspectors would have noticed this poor product and we would have had some mention of this. This is not to say that some of the "Causes" listed didn't occur and that they didn't have some bearing on the problem but I don't believe that the answer to the problem lies in the mechanics of putting the paint on the girders.

Question No. 6 deals with the consequences of exposing the freshly painted girders to rainfall. The answer assumes that RB 191 was postcured prior to exposure. This was not the case. This answer should be amplified with the understanding that the RB 191 was not postcured. RB 193 was postcured with RB 6851 but this answer does not mention RB 193. I would assume that the answer would be the same, but this should be clarified. It is very interesting to note that the "Evidence" given in the answer of a "blotchy" or a water stained area describes the steel girders as they were received in Portland.

Question No. 9 deals with the effects of application of various rates of acid curing solution on the freshly painted girders. Unfortunately Mr. Saroyan is talking about the application of RB 195 curing solution on RB 191 inorganic zinc. In actuality, RB 6851 acid cure, was applied over RB 193. It may be that the data supplied by Mr. Saroyan applies equally to the paint and acid actually used but this should be verified. My comments that follow assume that Mr. Saroyan's answer would be the same if he had been using the correct formula numbers.

Saroyan goes through a chemical analysis of the acid cure and paint to end up verifying that Enjay's recommendation of using 1/2 gallon of curing acid per gallon of inorganic zinc is correct. He then goes on to calculate a spreading rate for the acid based on an assumed spreading rate for the inorganic zinc. By assuming that the zinc was applied three dry mils thick over the peaks of the profile and further that the profile was a mil and a half to two mils deep, he concludes that the spreading rate for the zinc was 200 square feet per gallon and that, therefore, the spreading rate of the acid was correctly stated by Enjay at 400 square feet per gallon.

Mr. Saroyan's assumptions are based on the data that has been supplied him. However, I believe that some refinements should be made in these assumptions. With respect to the thickness of the film, a modification was made early in the project with respect to where the top of the blast profile stopped and the bottom of the paint film started and I am reasonably sure that some projection of the blast profile into the paint film was allowed when it came to measuring the film thickness. Secondly, when the change was made to RB 193, since it had better adhering qualities, the requirement of a one and a half to two mil anchor pattern was dropped in favor of obtaining a near-white blast. As a result, it was reported that the anchor profile used for the 193 paint was a half mil thick.

Therefore, where Mr. Saroyan assumes that there is a total of four and a half mils of zinc paint on the steel for spreading rate purposes, I believe a closer approximation would be on the order of three mils, say two and a half mils for the paint thickness and a half a mil allowed for filling the blast profile, giving a total of three mils. This would give a spreading rate for the zinc paint of 300 square feet per gallon and a spreading rate for the acid of 600 square feet per gallon. Since Canron was instructed by Enjay to use a spreading rate of 400 square feet per gallon and further, assuming that Canron painters may have used the theory that if a little is good a lot is better, it is conceivable that the amount of acid cure actually applied may have approached double that actually required.

If one can correctly hypothesize that the amount of curing acid actually applied is anywhere near double that which should have been applied then it is not difficult to explain what happened to the inorganic zinc paint when one reads Saroyan's "effects" of the application of acid at a rate of 250 square feet per gallon when he is assuming that 400 square feet per gallon is the correct rate. The "effects" as described by Saroyan of this "overdose" of acid describes almost exactly the phenomenon of zinc paint disappearance which we actually experienced. In my memo of April 8, 1971 written after visiting Canron's paint line in Vancouver, there is a statement that "Gordon Smith of CanTest has a theory that the phosphoric acid which is being used for the post-cure is absorbed deep into the zinc coating, possibly clear to the base metal, then later when the paint is exposed to moisture the unused acid is reactivated, comes to the surface and softens the surface of the zinc". If it can be shown that excessive acid was applied to the inorganic zinc, then Gordon Smith's theory takes on added significance.

The above-mentioned assumption of a total of three mils of zinc yielding a spread rate of 300 square feet per gallon of zinc is predicated on the operation in Canron's plant prior to the discovery of the paint problems in Portland. After this point in time, Canron made a deliberate effort to put more zinc on the girders and even went so far as to apply two coats. They have recently told us that even these girders have given trouble in Portland.

If these latter girders have also had zinc paint problems and perhaps Mr. Shotwell can comment on this, I believe this also can be explained by the application of acid cure. If you assume the milage of zinc put on in the latter condition is 5 to 5-1/2 mils with an additional allowance of a half mil for the profile covering, then a spreading rate for the zinc would be on the order of 150 square feet per gallon which would give a spreading rate for the acid of about 300 square feet per gallon. If you also assume that at this point in time Canron's people were following Enjay's recommendations for acid spreading rate more closely, and my memo referred to above mentions an acid spreading rate of 460 square feet per gallon, then you would have the situation where not enough acid was being applied and the effect described by Saroyan under his spreading of 800 square feet per gallon would apply. According to Saroyan, this condition would also promote premature rusting because the paint would not be adequately cured out.

Under the answer to question 9, Saroyan comments on the transparencies sent him. I didn't see these, but if they were typical of our problem, and I presume they were, his comment that they depict an obvious excess of curing solution is particularly significant in light of what I have said above.

I have sent copies of this letter to the three Resident Engineers on the Fremont project hoping that they would comment on my review as well as Saroyan's report and send their thoughts on both to you.

H. S. COULTER
Metropolitan Engineer

By: Edward L. Hardt

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb
cc: W. E. Johnson
R. E. Shotwell
John Howard
R. O. Cunningham
Dean Mandrell

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
P.O. Box 300
Salem, OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: September 5, 1972

In reply refer to: 10-35-DA

FROM : Mr. G. L. Green, Acting Division Engineer
Salem, Oregon

SUBJECT: I-405-8(20)303, I-405-8(22)304, I-405-8(23)304
I-405-8(24)304, I-405-8(28)303
East & West Fremont Interchanges
Stadium Freeway
State Force Order No. 4
Total Estimated Amount of the Order - $8,500.10
Federal Participation - $7,650.09

Reference is made to Mr. Young's letter of August 23, 1972, concerning the subject order.

We are approving the use of State Forces as being in the public interest under provision of PPM 21-6.2 for the following reasons:

1. The contractor is neither properly equipped nor staffed to perform the work contemplated under the order.

2. The State has the necessary special striping equipment and trained personnel to perform the work most economically.

Striping to be performed should be in conformity to the requirements of the Manual on Uniform Traffic Control Devices and will thus be eligible for participation under the provisions of Paragraph 6 of PPM 21-15.

Federal participation will be based on the agreed unit price for striping. The estimated total costs of the work to be done under this order is $8,500.10 with Federal participation of $7,650.09.

Enclosure
State Force Order No. 4

NOTED
F. B. KLABOE

9-7-72

RECEIVED
STATE HWY ENGR
SEP 7 '72
REFER TO
FOR

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

SEP 5 - 1972

FOR FILING

A E Johnson

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE August 25, 1972

TO Memorandum to the File

FROM R. W. Ellison
Bridge Administration Engineer

SUBJECT East Fremont Interchange, Contract
West Fremont Interchange, Contract
Contracts 7310, 7311, and 7312
Paint Claim

RECEIVED
AUG 31 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

A meeting was held beginning at 10 a.m., July 14, 1972, in the large conference room in the State Highway Building, Salem, regarding the paint claim of the subject projects. Persons in attendance are listed on the attached sheet.

Mr. Franzke opened the meeting indicating that when the paint problem was discovered Canron began investigating and assembling data as to its cause. Some of this data was presented to the Oregon State Highway Division; additional data was presented upon request by Oregon State Highway Division. Further data will be presented if specific requests are made. He continued that the State has not indicated what the contractor did wrong or what the contractor did not do that should have been done relative to the paint problem and that he would like to know our thinking in this matter.

Mr. Lindas read excerpts from Pittsburgh Testing Laboratory's painting inspection reports, and a summary of his meeting with Mr. Ken Peterson of Pittsburgh Testing Laboratory. He then queried whether comments indicate a poor application procedure or the paint system itself to be the cause of the problems. He further indicated that the Oregon State Highway Division has paint test panels which were made at the time the trouble began. The panels were described by Dean Mandrell.

Bob Cunningham stated that he has been unable to verify the paint film thickness readings made by Pittsburgh Testing Laboratory on Fremont superstructure members at the paint shop. However, he has not been able to detect any loss of paint since the members arrived in the Portland area.

Mr. Franzke countered that this does not correspond to his findings on the job,and he showed many photos which allegedly showed rusting of superstructure members. His people also found less paint on the members than originally applied.

Mr. Lindas suggested that the rust could be caused by improper application.

Mr. Franzke agreed and stated that inspection should find such and require correction. He said Canron used wet film gages and a wet to dry film ratio to get proper dry film thickness. Calculations based on quantity of paint used show an average of 4 mils ±. Canron and Pittsburgh Testing Laboratory both checked and were satisfied. It is hard to believe painting is cause of rust.

Mr. Lindas wondered why there are problems with the bridge, and no problems with the test panels. He suggested the use of a sweeping motion for application was not correct.

Mr. Franzke insists that the contractor followed Enjay's application instructions as required by specifications. If this produced a bad job, it is no fault of the contractor.

Mr. Jackson said inquiries to Enjay, SSPC, and the Association of Corrosion Engineers indicated that Mr. John Saroyan has most expertise in this system. Mr. Saroyan made chemical tests and reports for the contractor.

Mr. Franzke stated that all expert literature shows sacrifice to continue unless paint is sealed.

There was some discussion and disagreement as to how long zinc paint without a seal coat will last. It depends alot on the atmosphere. Al Johnson brought up the fact that Enjay did not recommend a seal coat.

Mr. Franzke said the contractor recommended this with Enjay approval. This recommendation was made after the problem was discovered in February, 1971. It would not solve the problem to that date, but would solve future problems. Seal coat would slow sacrificial rate, but no one knows how much. He stated that photos show completely painted girders with rust, but did not know where rust came from, and that the girders are being repainted.

Al Johnson countered that only holidays are being painted, i. e., areas not painted before. There was some question as to exactly what the photographs do show.

Mr. Lindas suggested that Mr. Saroyan's report would be of value to the State. He is convinced Mr. Saroyan knows more about this system than any other man.

Mr. Jackson agreed to allow Mr. Lindas to talk with Mr. Saroyan. Mr. Franzke asked Mr. Lindas to get together with him to make arrangements to discuss this matter with Mr. Saroyan. Mr. Lowry suggested Mr. Lindas make a list of questions he has regarding the painting. Mr. Lindas and Mr. Franzke are to get together during the week of July 17.

RWE/ag
cc L. I. Lindas
A. E. Johnson
R. O. Cunningham
J. D. Howard
Charles Lobaugh
R. Shotwell
Ed Hardt
W. J. Hart
cc Dean Mandrell
J. E. Chidsey
Ed Rief
R. A. Franzke-Canron

MEETING RE PAINT, FREMONT BRIDGE
July 14, 1972
Salem, Oregon

In Attendance:

L. I. Lindas, Asst. Attorney General & Counsel	OSHD
R. O. Cunningham	OSHD
J. D. Howard	OSHD
Charles Lobaugh	OSHD
Bob Shotwell	OSHD
Ed Hardt	OSHD
Bruce Jackson	Canron
R. A. Franzke	Canron
Dick Davies	Canron
Terry Lowry	Corrosion Coatings
Walter J. Hart, Bridge Engineer	OSHD
Dean Mandrell, Materials	OSHD
J. E. Chidsey, Materials	OSHD
R. W. Ellison, Bridge Administration Engineer	OSHD
A. E. Johnson, Assistant State Highway Engineer	OSHD
Ed J. Rief, District Inspection Engineer	OSHD

RECEIVED
AUG 29 1972
FOR FILING

7311

August 25, 1972

TO G. L. Green, Acting Division Engineer
Federal Highway Administration

Federal-aid Project
No. I-405-8(23)304

FROM George M. Baldwin
Administrator of Highways

by ORIGINAL SIGNED BY
R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT Request Change Order Approval

Contract 7311 Extra Work Order No. 14

Project East Fremont Interchange, Unit B

Highway Stadium Freeway

County Multnomah

The order covers replacement of Dresser couplings with Victaulic couplings on the dry fire lines. Tests indicate the Dresser couplings are not capable of withstanding the water pressure involved, therefore requiring their replacements.

Attached are copies of a letter from the Assistant Metropolitan Engineer.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on August 3, 1972.

Your approval as of August 3, 1972 is requested.

Attachments

JK:js

RECEIVED

FOR FILING

7311

Salem, Oregon

August 10, 1972

V. E. Skoog
Controller

L. H. Young
Programing Engineer
E. Fremont Interchange: Unit "A"
Contract 7310

The billing voucher submitted to the Federal Highway Administration for reimbursement of expenditures to July 31, 1972 indicates an amount due of $141,672.04 in federal funds which exceeds the amount of funds set up for the project. In order to collect this amount due it is necessary to submit a revised estimate and modification of project agreement to FHWA indicating the items which constitute the increase in cost. In checking the contract to determine which items of cost were increasing it was noticed that the expenditures for construction engineering as charged to the accounting records to July 31, 1972 on contract 7310 are considerably in excess of the amount authorized on the contract and also the amount indicated as expended on the Progress estimate and cost report for work accomplished to July 5, 1972. Since the construction engineering as charged greatly exceeds the amount allowable on Unit "A" it is not possible to modify the project agreement at this time to collect the additional federal funds indicated as due on the project. Therefore if reimbursement is to be received on these expenditures it is necessary that transfers be made on that portion of the construction engineering as may be applicable to either contract 7311 (Unit "B") or 7312 (Unit "C").

Enclosed is a copy of Mr. Merchant's letter of December 1, 1969 to R. E. Simpson with an attached copy of the procedures which were proposed to simplify all department and inter-department matters. Enclosed also is a tabulation showing the status of engineering charges to the three contracts as of the July 31, 1972 accounting records, the amounts of engineering authorized on each of the contracts and the amounts listed as expended on the Progress estimate and cost Report as of July 5, 1972 on each of the contracts.

cc: W. J. Hart

DAR:kds

E. Fremont Interchange Contracts

	Unit "A" Contract 7310 Prefix 626-1017		Unit "B" Contract 7311 Prefix 626-1018		Unit "C" Contract 7312 Prefix 626-1022
Expenditures shown on Accounting Records as of 7-31-72					
900 P	$977,977.98	900 P	$60,601.75	900 P	$48,903.60
900 N	13,063.53	900 N	4,122.14	900 N	1,104.24
915 P	442.34	915 N	31.28	950 P	96.76
950 P	834.36	950 P	53.22		
985 P	284.98	950 N	1.08		
Total	$992,603.19	Total	$64,809.47	Total	$50,104.30
As Shown on Progress Estimate and Cost Report to 7-5-72	$435,540.71		$306,491.61		$64,524.55
Construction Engineering Authorized under the Contracts	$663,273.25		$450,402.82		$110,904.68

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

December 1, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street N. E.
Salem, Oregon 97310

Dear Mr. Simpson:

East Fremont, Unit A Cont. 7310 FAP I-405-8(22)304
East Fremont, Unit B Cont. 7311 FAP I-405-8(23)304
East Fremont, Unit C Cont. 7312 FAP I-405-8(24)304

All three contracts were awarded to one contractor, Drake-Willamette Joint Venture. Routine administration of each contract as a separate entity in some instances is not practical. Because of this the contractor has requested certain concessions in the contract specifications and overall project administration. A copy of his request of October 30, 1969, is attached.

In line with our conference of November 21, we are granting certain concessions to the contractor. These are outlined in our letter of November 28, 1969 (copy attached). With your concurrence we will proceed in the manner outlined in this letter. It is mutually advantageous to both the State and the Contractor to combine as many of the duplicating details as possible.

In addition to the items listed in the Contractor's letter request, we will try to simplify all Department and Inter-department reports insofar as possible. A copy of our procedures to accomplish this is attached for your information.

Very truly yours,

Ivan D. Merchant
Bridge Engineer

CAG:DH
Attachments

cc Tom Edwards
A. E. Johnson
F. D. Morgan (2)
G. E. Rohde
V. E. Skoog
Laboratory
Robert Shotwell

Routing
Morgan — Parks
Ducker — Swan
Bond — Sloan
Walker — Whitfield
Jochims — Gillespie
Johnson — Dick

RECEIVED
DEC 1 1969
CONSTRUCTION DIVISION

EAST FREMONT APPROACH CONTRACTS

PROCEDURE FOR HANDLING MISCELLANEOUS
ADMINISTRATIVE PROCEDURES

Department Engineering Charges

E. Fremont Unit A - 7310	$12,994,986.98	54%
E. Fremont Unit B - 7311	8,982,856.29	38%
E. Fremont Unit C - 7312	2,007,348.73	8%
	$23,985,192.00	100%

Charge all items of cost to one prefix. Resident Engineer will, each month, clear this prefix by transferring on a pro rata basis to other assigned prefixes. Resident Engineer can use costs shown on the Job Cost Summary by Crew Report furnished the Resident Engineer monthly by the Accounting Division as a basis for this.

Calendar Day Count Report

One report required. Status of each contract to be shown in separate columns of the report.

Price Agreements, Orders for Extra Work and State Force Orders

If applicable to one unit only, prepare in usual manner; if applicable to more than one unit, list all units involved (with FA project numbers) and State pro rata share chargeable to each unit. Estimates to show amounts chargeable to each unit. Supporting data in usual number of copies for a single unit.

Start and Complete Notices, Stop and Resume Work Orders, Division Inspection Reports

Individual reports for each contract.

Weekly Reports

Resident Engineer to work up form to combine all three contracts in a simgle report and submit same for approval. Prior to approval individual reports on each contract are to be submitted.

RECEIVED
AUG 7 - 10 2
FILE
7311

August 3, 1972

Gordon C. Bjork, Ph.D.
President, Linfield College
McMinnville, Oregon 97128

Dear Doctor Bjork:

Below are the contract quantities of reinforcing steel for the Fremont Bridge and approaches. If you need more information, please contact us.

W. Fremont Approaches	14,457,000 lbs.
E. Fremont Approaches	2,712,700 lbs.
Fremont Bridge Substructure	1,950,000 lbs.
Fremont Bridge Superstructure	1,010,000 lbs.
Total	20,129,700 lbs.

Very truly yours,

George M. Baldwin
Administrator of Highways

By

F. B. Klaboe
Deputy State Highway Engineer

OMP:dh 1a

bc Tom Edwards
A. E. Johnson
Walt Hart

RECEIVED
JUL 28 1972

Gen. Files

FORM 8-30
FOR FILING

7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
July 28, 1972

To: Leonard Lindas
Ass't. Attorney General & Counsel
Salem

SUBJECT: East & West Fremont Bridge
Approaches
Contracts 7214, 7310 & 7311
Inorganic Zinc Paint Problems

I recently wrote to Enjay Chemical Company soliciting their comments with respect to our problems on the Fremont project regarding inorganic zinc primer. In response to this inquiry, attached you will find a copy of a letter from Enjay signed by Don Blue dated July 26.

The substance of this reply is that

1. The paint was applied properly and that the acid cure would not have adversely affected the zinc and

2. For use in the Portland area the inorganic zinc primer should have been protected with at least one coat of topcoat applied in the shop.

To the best of my knowledge, this is the first time that the Enjay Chemical Company has suggested that their inorganic zinc should have been protected prior to application of the vinyl finish coat. This letter is forwarded for your information and for whatever action you feel might be called for.

H. S. COULTER
Metropolitan Engineer

By:

NOTED
A. E. JOHNSON

ORIGINAL SIGNED BY EDWARD L. HARDT

EDWARD L. HARDT
Assistant Metropolitan Engineer

RECEIVED
AUG 1 1972
OFFICE OF
STATE HIGHWAY ENGINEER

EH:pb

Encs

cc: W. E. Johnson w/attach.
Walter Hart "
R. E. Shotwell "
John Howard "

NOTED
JOM EDWARDS

RECEIVED
JUL 31 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

ENJAY CHEMICAL COMPANY

METROPOLITAN ENGINEER
RECEIVED
JUL 28 1972
ME AME AME MOE MOE MTE

ENJAY

SPECIALTIES DEPARTMENT
INDUSTRIAL COATINGS

July 26, 1972

Mr. E. L. Hardt
OREGON STATE HIGHWAY DIVISION
Metropolitan Section
5821 N. E. Glisan
Portland, Oregon 97213

Dear Sir:

This letter is in response to your letter of July 6, 1972 in which you solicited Enjay's opinion as to probable causative factors for the problems you have encountered with RUST-BAN 191 and 193 Inorganic Zinc Primer used on the Fremont Street Bridge.

I observed some of the coating application and conducted film thickness determinations at Canron's Vancouver Plant. I observed that the specified amount of coating was applied. Pittsburgh Testing Laboratory personnel, your agents, were constantly recording film thicknesses on the steel girders and their markings indicating adequate dry film thicknesses were quite visible. Also, the manner in which the girders were positioned during the coating operation would have, in my opinion, precluded the excess application of curing accelerator in a one coat application due to the viscosity of the accelerator and tendency to run off the steel.

Regarding exposure of the applied coating, the slow speed with which the steel girders moved through the coating operation would essentially preclude moving the steel girders into the elements before the coating was properly cured (except for the possible exposure of an end of a girder). As you are aware, application of the curing accelerator caused rapid curing of the inorganic zinc. Further, the girders were coated upside down and the interior of them wasn't exposed to the elements initially.

You mention the possibility of a hostile environment in Portland (chemicals in the air) along with flushing action of winter rains causing the zinc in the coating to sacrifice itself to protect the steel substrate (as the inorganic zinc coating is supposed to do). These are certainly probable causes of the problems you are experiencing. For example, I have observed and taken photographs of the same type of rusting on the steel pieces for the superstructure (coated with Mobilzinc #1). It is apparent that the zinc coatings used on the Fremont Bridge have undergone accelerated weathering, as it were, due to the nature of the environment. In environments such as this, it is a good practice to use a multi-coat topcoat system whereby at least one coat of organic topcoat is applied

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JUL 31 1972
OFFICE OF
A. E. JOHNSON
ASSISTANT STATE HIGHWAY ENGINEER

in the shop to prevent exposure of the zinc coating to severe fresh water washing action and/or chemical fallout. Such a practice was used by the State of California on the San Diego-Coronado Bridge and the San Mateo-Hayward Bridge and is more or less in general use there on inorganic zinc shop coated structures.

I trust these comments will be of some use to you. Please contact me if we can assist further.

Very truly yours,

D. R. Blue

D. R. Blue

DRB:hg

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JUL 25 1972
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OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

TO G. L. Green, Acting Division Engineer
~~XXXXXXXXXXXXXXXXXXXXXXXXXX~~
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

DATE July 24, 1972

Federal-aid Project
No. I-405-8(23)304

FROM George M. Baldwin
Administrator of Highways
ORIGINAL SIGNED BY
by R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT **Request; Change Order Approval**

Contract 7311 Extra Work Order No. 13

Project East Fremont Interchange, Unit B

Highway Stadium Freeway

County Multnomah

The Order covers modifying the installation of flexible conduit on the underdeck luminaires. The installation as provided on Drawing No. 25431 proved to be very unsightly. The conduit will be installed so that it is less noticeable.

Attached are copies of a letter from the Assistant Metropolitan Engineer.

This work was tentatively recommended for approval by the Federal Highway Administration Area Engineer on July 11, 1972.

Your approval as of July 11, 1972 is requested.

Attachments

JK:kds

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7311

July 18, 1972

TO Mr. Glen L. Green
Acting Division Engineer
Federal Highway Administration

bc George M. Baldwin
Tom Edwards
F. B. Klaboe
Walt Hart
L. H. Young
H. S. Coulter

FROM A. E. Johnson
Assistant State Highway Engineer

SUBJECT Request Change Order Approval
Price Agreement No. 14
Contract No. 7311
East Fremont Interchange, Unit B
Stadium Freeway
Multnomah County
F.A. Project No. I-405-8(23)304

Attached is Price Agreement No. 14 on the subject project which was previously returned unapproved from your office because of insufficient supporting data.

Additional supporting data is attached in the form of a copy of a letter from Edward L. Hardt, Assistant Metropolitan Engineer, to Walter J. Hart, Bridge Engineer. Contents of this letter indicate that the original contract specifications were not complete enough to insure the use of the best topcoating material available.

As a result of experimental work conducted under Extra Work Order No. 13, the Carbolene product was found to produce far superior results than the material originally considered for use, but at some increase in cost to the contractor. It is considered that the use of this more satisfactory material, in regard to the additional protection afforded and extended life of the topcoating material contemplated, warrants payment to the contractor for his additional costs.

Your approval, with participation as of April 20, 1972, is requested.

Attachments

JD:ag ja

FORM 8-30 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
June 14, 1972

To: Walt Hart
Bridge Engineer
State Highway Building
Salem

SUBJECT: East Fremont Interchange
Units A & B
Contracts 7310 & 7311
Justification for Carbolene Vinyl

You have asked that this office prepare supporting data that will justify Federal participation in the cost in the change from Enjay vinyl to Carbolene vinyl on the subject projects.

In the spring of 1971 when the vinyl paint pinholing and bubbling problem became wide-spread, we hired the West Fremont painting subcontractor under Extra Work Order No. 13 to experiment with different types and brands of vinyl products in an attempt to find a satisfactory topcoating material. As a result of this experimental work, we found that in general the vinyl paint manufactured by the Carbolene Company produced a surface with fewer bubbles and pinholes than the Enjay vinyl. For this reason the specifications were modified to allow the use of Carbolene vinyl and the Contractor was encouraged to make the change. Subsequently, price agreements were submitted for Units A and B of the East Fremont Interchange to compensate the Contractor for the cost differential between the Carbolene and Enjay paints. This cost differential was calculated by subtracting the invoice price of each brand of paint.

The change to Carbolene vinyl was made in order to get the best topcoat material available. The change was necessary because the contract specifications did not go far enough in calling out the requirements to get such a product. The Carbolene vinyl as compared to the Enjay vinyl is a superior product as evidenced by the following.

1. Carbolene vinyl has a higher solids content. This means that there is less solvents to be evaporated out of the wet film, thus decreasing the tendancy for the paint to bubble and pinhole as it is drying. The specifications required only a minimum solids content.

2. The Carbolene vinyl has a different solvent makeup as compared to the Enjay vinyl. The Carbolene solvents are essentially the aromatic type as compared to the ketones used by Enjay. aromatic solvents by nature are slower to evaporate which allows the solvents to escape from the paint film before the surface film sets up which results in less pinholing and bubbling. The specifications were silent with respect to the type of solvent used.

RJW gave Herb Schell a copy of this 6-21-72 for his review together with Christianson & Valach, who won't be in until 6-28-72.

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JUN 19 1972
BRIDGE DIVISION

ROUTED
R. W. ELLISON

3. Carbolene vinyl uses different pigments as compared to the Enjay vinyl. Carbolene's mineral pigments are a higher quality and more expensive than those used by Enjay and they are more color-fast and less apt to show discoloration. Enjay uses an organic toner to produce the green paint specified which is not as stable as the mineral pigments. The Enjay vinyl that was used on the Fremont projects showed a tendency to discolor and by changing to Carbolene vinyl the State very likely avoided a large problem due to the discoloration tendency. It is possible that some of this discoloration wouldn't have been apparent until after the project was accepted resulting in an unsatisfactory appearing paint job. The specifications were silent with respect to the type of pigmentation used.

With respect to the cost of the vinyl color change the price quoted of $1.26 per gallon for the change to Carbolene vinyl would be constant regardless of the color of the Carbolene vinyl. Their pricing structure is such that the paint price is the same regardless of color. It was my understanding that if we had changed the color of the Enjay vinyl from "Highway Green" to "Celadon Green" there would have been a price increase.

Our painting experience subsequent to the change to Carbolene vinyl has indicated that this was a prudent decision. Although we have not yet gotten into the hot weather conditions, the Carbolene vinyl being applied on both West and East Fremont projects is producing an acceptable topcoat with very little pinholing and bubbling.

H. S. COULTER
Metropolitan Engineer

By:

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb

cc: John Howard
R. E. Shotwell
J. E. Chidsey
R. O. Cunningham

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JUN 19 1972
BRIDGE DIVISION

OREGON STATE
HIGHWAY DIVISION

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

July 6, 1972

7311

Enjay Chemical Company
8230 Stedman Street
Houston, Texas 77029

ATTENTION: Don Blue

Gentlemen:

Structural steel girders for the East and West Fremont approaches in Portland were painted with Enjay's Rust Ban 191 and 193 inorganic zinc primer in Vancouver, British Columbia and then shipped to Portland. After arrival in Portland about three months after the time the Rust Ban 193 was applied, the steel began to rust. Paint thickness readings taken at the time of the rusting showed film thicknesses in the order of one mil or less.

Canron Ltd., the steel fabricators and primer painters, maintain that the three mils of inorganic zinc specified was applied in their plant and that it somehow disappeared in the ensuing three month period. The purpose of this letter is to solicit your thoughts with respect to what could have caused this apparent paint film thickness loss. Our investigations indicate that one or more of the factors listed below may have contributed to this phenomenon:

1. The acid which was used for a curing accelerator may have been applied too heavily.

2. The freshly-painted girders may have been exposed to the winter-time elements before the paint had been properly cured.

Canron is contending that the supposedly hostile environment in Portland together with the exposure of the paint to flushing action of the winter rains has caused the Rust Ban 193 to sacrifice itself in a matter of several months to the point where it no longer protects the steel. As suppliers of the paint, we request your analysis of this problem as to probable causative factors. We would appreciate your earliest reply on this matter.

H. S. COULTER
Metropolitan Engineer
By:

ORIGINAL SIGNED BY EDWARD L. HARDT

EDWARD L. HARDT
Assistant Metropolitan Engineer

ELH:pb
BCC: A. E. Johnson
Leonard Lindas
Walt Hart

NOTED
A. E. JOHNSON

JUL 7 Rec'd

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JUL 12 1972
FOR FILING

7311

July 6, 1972

Davies, Biggs, Strayer, Stoel and Boley
Twenty-Third Floor
900 S. W. Fifth Avenue
Portland, Oregon 97204

Attention: Richard A. Franzke

Gentlemen:

This is to acknowledge receipt of your letter of June 28 with affidavits concerning the status of several State Highway construction contracts.

Attached are certified copies of the contract and bond pages covering Contract Nos. 7214, 7310, 7311 and 7312.

We are also enclosing a tabulation sheet giving the percent completed, estimated completion date and percent paid as of May 31, 1972, covering the four contracts.

Very truly yours,

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

By
C. W. Head, Assistant Secretary

CWH:dr

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
CABLE ADDRESS: HARTPORT

CHARLES A. HART
DAVID L. DAVIES
HUGH L. BIGGS
MANLEY D. STRAYER
THOMAS B. STOEL
PAUL L. BOLEY
FREDERICK H. TORP
JAMES P. ROGERS
RICHARD DEVERS
GEORGE H. FRASER
WILLIAM W. WYSE
JOHN R. MAY
CLEVELAND C. CORY
CLARENCE R. WICKS
ROBERT H. HUNTINGTON
DAVID G. HAYHURST
THOMAS P. DEERING
CAMPBELL RICHARDSON
MILO E. ORMSETH
CHARLES J. McMURCHIE
GARRY R. BULLARD
ROBERT L. RIDGLEY
RICHARD A. FRANZKE
EDWARD L. EPSTEIN
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WILLIAM M. McALLISTER
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VELMA JEREMIAH

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TERRENCE R. PANCOAST
HARRY S. CHANDLER
JIM D. KORSHOJ
HENRY H. HEWITT
WALTER C. MINNICK
JERE M. WEBB
RONALD S. GROSSMANN
LUCIAN J. CARSON
RICHARD E. ROY
JEFFREY MICHAEL ALDEN
MILTON R. STEWART
CHARLES F. HINKLE
K. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

June 28, 1972

Mr. Floyd Query, Secretary
Oregon State Highway Department
State Highway Building
Salem, Oregon 97310

Dear Mr. Query:

We are counsel for Canron Limited, which was sub-contractor for furnishing structural steel on the following contracts:

West Fremont Interchange, Contract 7214,
Prime Contractor - Andersen-Hannan, Joint Venture

East Fremont Interchange, Contract Nos. 7310,
7311, 7312, Units A and B, Prime Contractor -
Drake-Willamette, Joint Venture

With respect to each of the above-mentioned contracts, please advise:

(1) The present status of the work in terms of a percentage of completion and the expected completion date and probable date of formal acceptance;

(2) The status of payments to the prime contractors as of May 31, 1972 in terms of percentage of the total anticipated payments under such contracts.

Enclosed herewith are affidavits by the undersigned pursuant to ORS 279.512 et seq. Please furnish certified copies of the contracts and bonds pertaining to the above-mentioned projects.

7/3 Sent copy to Vince G. for Info—

NOTED
FLOYD QUERY

NOTED
C. W. READ

Acc, I think Contract & bond pages 6 thru 9 will suffice if identified by contract no. E.L.

Your assistance in these matters will be very much appreciated.

Very truly yours,

Richard A. Franzke

Richard A. Franzke

RAF:pm
Enclosures

RECEIVED
JUN 29 1972
OREGON
STATE HIGHWAY COMMISSION

A F F I D A V I T

STATE OF OREGON)
) ss.
County of Multnomah)

I, RICHARD A. FRANZKE, being first duly sworn, on oath depose and say:

I am counsel for Canron Limited, a subcontractor under Drake-Willamette, a joint venture, pursuant to Contracts Nos. 7310, 7311, 7312, Units A and B, for construction of the East Fremont Interchange, in Portland, Oregon, and I make this affidavit in support of Canron Limited's request for certified copies of the contract and bond pertaining to said project. Canron Limited has supplied labor and materials in connection with said project and has a claim therefor that has not been paid.

Richard A. Franzke

Subscribed and sworn to before me this 28th day of June, 1972.

Patricia A. McCabe
Notary Public for Oregon

My commission expires: 10-15-74

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JUN 29 1972
OREGON
STATE HIGHWAY COMMISSION

	(1) Percent Completed	(1) Estimated Completion Date	(2) Percent Paid To 5-31-72
7214	99.5	7-31-72	98.6
7310	95.2	9-1-72	90.2
7311	98.5	9-1-72	95.6
7312	98.1	9-1-72	94.5

7-5-72
Jim Kinne

DAVIES, BIGGS, STRAYER, STOEL AND BOLEY
LAW OFFICES
TWENTY-THIRD FLOOR 900 SW FIFTH AVENUE
PORTLAND, OREGON 97204

TELEPHONE (503) 224-3380
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JEFFREY MICHAEL ALDEN
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E. PATRICK NEILL
ROBERT S. QUINNEY
JOY D. ABELE

7311

RECEIVED
JUL 3 1972
LEGAL

June 30, 1972

Mr. Leonard I. Lindas
Chief Counsel
Oregon State Highway Department
Salem, Oregon 97310

Dear Leonard:

Re: Fremont Bridge Zinc Primer

I've tried several times this week, without success, to reach you by telephone to determine the status of your review of the material we recently submitted. I know from our past conversations that you have been very busy and have been forced to delegate some of these things to other people. Nevertheless, as I'm sure you understand, my client is extremely anxious to get this whole matter resolved as soon as practicable. I think you are familiar with the background of the problem which contributes to Canron's feeling that the problem is not receiving as much attention as it should from those in whose hands the problem now rests; for the benefit of others who may not be familiar with that background, I will very briefly summarize the chronology of events.

The rusting through the primer was first noticed in February, 1971, nearly 18 months ago. Immediately Canron went to work seeking an explanation of the problem, and hired outside consultants to assist in that study. Canron subsequently made a specific recommendation it thought would avoid the rusting problem, i.e., application of a vinyl seal coat in the shop. The Highway Department first approved this solution, and then, without explanation, rescinded its approval. In the months following, although the State had retained its own consultant, it would never permit its consultant and Canron's to meet and deal directly in exploring the problem and arriving at a solution. Throughout this period and for months after, Canron conducted studies and investigations, counseled with numerous

JUL 3 19

experts, and in general made an exhaustive effort to determine the cause and the appropriate solution of the problem. I think any objective observer familiar with the facts would admit that the other parties did precious little during this time to really get to the root of the problem.

Following those months of investigation and study, Canron presented to the State in February, 1972, a comprehensive statement of its position and the result of its investigation. In that presentation we tried to cover every aspect of the issue involving selection and application of the paint, analysis of the specifications, chronology of events, legal issues arising under the contract, etc. We invited critical review of that analysis. Several months later you asked for additional detail on two specific points on which, apparently, attention had been focused in the course of your review. On June 2 I submitted to you the additional information you requested and assured you we were willing to try to furnish answers to any other questions you might have. To date we have not been asked to submit any additional information.

While I do not in any way want to interrupt your orderly review of this problem, at the same time we are I think understandably becoming perturbed by the amount of time it is taking to get a statement of the Highway Department's position. After all, the Department has been aware of the paint problem as long as anyone. While it is true you have had personnel changes within the Department, we have also, and that is simply a fact of life we all have to live with.

I think you know, Leonard, from our conversations and from the material we have furnished, that I am completely confident Canron is not responsible for the failure of the zinc primer, and I have no doubt that you will eventually arrive at that conclusion, also, bearing in mind that we questioned the State specification from the very beginning. As I have told you, I have no desire particularly to start litigation to achieve a result that can as well be accomplished by all parties' sitting down together and reviewing the facts. On the other hand, we feel we have been both cooperative and patient to this point,

and we would like now to see a final resolution of the problem.

Very truly yours,

Richard A. Franzke

RAF:pm

cc: Canron Limited
Attention Mr. Bruce Jackson

STATE OF ALASKA

WILLIAM A. EGAN, GOVERNOR

DEPARTMENT OF HIGHWAYS

OFFICE OF THE COMMISSIONER / P. O. BOX 1467 — JUNEAU 99801

June 26, 1972

Re: 30-2505

cy. Staff Hwd 6-29-72

Mr. A. E. Johnson
Assistant State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

I am in receipt of your June 21, 1972, letter and the attached consultant's reports on zinc paint. This information is most interesting and generally concurs with our observations in that a loss of up to 0.5 mil thickness can be expected under certain conditions of application and curing. We are still in the process of evaluating the zinc system on two of our major structures and will furnish you our conclusions at a later date. Certainly our problems are quite similar to yours on the Fremont Bridge.

If you desire any specific information regarding our correction of the problem, please advise.

Very truly yours,

B. A. Campbell
Commissioner of Highways

R. D. Shumway

R. D. Shumway
State Construction Engineer

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JUN 29 1972
BRIDGE DIVISION

RECEIVED
JUN 28 1972
OFFICE OF
STATE HIGHWAY ENGINEER

METROPOLITAN ENGINEER

OREGON STATE HIGHWAY DEPARTMENT

RECEIVED
JUN 15 1972

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INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
June 14, 1972

To: H.S. Coulter
Metro Engineer

Attention: Ed Hardt
Asst. Metro Engr.

SUBJECT: Fremont Bridge Superstructure
Stadium Freeway
Contract No. 7276

Fremont Bridge Zinc Painting

L

I am in receipt of the June 2, 1972 letter from Richard Franzke to Leonard Lindas concerning Fremont Bridge Zinc Painting. I would take exception to Mr. Franzke's statement that the zinc paint on the superstructure project is deteriorating in virtually the same manner as the zinc paint on the approach projects.

Paint thickness tests were performed beginning approx. 6 months after the frist material arrived and then tests were performed four times in the year following. Paint thickness were not found to be deteriorating during the inspection period. Therefore I cannot relate their problem to any conditions found on this project. To support my statements I have enclosed copies of reports of four separate inspections performed by R.O. Cunningham.

R.O. Cunningham
Resident Bridge Engineer

by

Dan Bacon

Dan Bacon
Asst. Res. Br. Engr.

DB:dgh

cc: file

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE June 7, 1972

TO Walter J. Hart
Bridge Engineer

FROM R. W. Ellison
R. W. Ellison
Bridge Administration Engineer

SUBJECT West Fremont Interchange
East Fremont Interchange
Fremont Bridge Main Span
Painting

Contracts for the subject projects were awarded as follows: West Fremont Interchange, April 29, 1969; Fremont Superstructure, July 3, 1969; and East Fremont Interchange, September 11, 1969.

The special provisions for all of these projects relative to painting new metal structures deleted our Standard Specifications for painting and substituted, therefore, the SSP Manual, Volume II, Second Edition, as modified by the special provisions.

At the time of award of the subject projects the 1967 printing of the SSP Manual, Volume II, Second Edition, was in use. This did not include the 1968 supplement, SSPC-PS 12.00-68T, Guide to Zinc-Rich Coating Systems. This supplement was issued separately in February of 1969 and was probably in effect at the time the subject contracts were awarded.

The special provisions listed as an applicable specification SSPC-PS 12-64P, which is approximately the same specification as the SSPC-PS 12.00-68T. Since the 12-64P specification is specifically mentioned, it appears that the 12.00-68T specification was not actually available or that we desired to use the 12-64P specification instead of the 12.00-68T specification.

The 12-64P specification is included in the specified SSP Manual as a specification under preparation for issuance and it does deal with Zinc-Rich Coating Systems.

It appears that the specifications for the subject projects did include a section on Zinc-Rich Coating Systems (SSPC-PS 12-64P). This section included a description of both organic and inorganic materials, a recommendation for cleaning steel, and other comments regarding the use of Zinc-Rich Systems.

RWE/ag
cc A. A. Rear
R. J. Wright

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Ore.
April 16, 1971

To: Memo to the Files

SUBJECT: Fremont Bridge Superstructure
Stadium Freeway
Contract No. 7276

Paint Thickness Measurements

On the above date R.O. Cunningham made some paint thickness readings on miscellaneous fabricated components for the subject project. Readings were taken at Swan Island with a Tooke Mark II coating inspection gauge. Thickness readings of the inorganic Zinc prime coat (Mobil Zinc 1) are as follows:

Piece	Mils
Span 13	11
" "	6.5
" 10	10
" 7	5
" 11	6.5
" 12	5.5
" 3	7.5
" "	13
" 5	3
" 2	2.5
" 6	6
" 6	3
" 1	7.5
" "	3.5
" 35	4
" "	4
" 38	3.5
" 41	5
" "	3
" 37	3.5
" "	4
" 36	5.5
" 45	6
" "	7
" 46	7.5
" "	4
" 42	5.5
" "	9
" 47	5

Piece	Mils
FB 614FB1 Div7	4
FB 124FB1Div 3	3.5
FB 614FB1 Div 7	4
FB 124FB1 Div3	4.5
FB " "	5
FB 614FB1 Div7	4
FB 510FB1 SB	3
"	3.5
FB 205FB1 Div2	4
FB 206FB1 Div2	3
"	5
FB 205 FB1 Div2	4
FB 206FB1 Div 2	4
FB 205FB1 Div2	4
FB 206 FB1 Div 2	3.5
FB 205FB1 Div2	3
FB 207FB1 Div2	3
FB 114FB1 Div1	3
"	3.5
FB 207FB1 Div2	3.5
FB 114FB1 Div1	3.5
FB 207FB1 Div2	4
FB 207FB1 Div2	3
FB 114 FB1 Div1	4
Hanger #[illegible]9629 Div7	3
Hanger #[illegible]17617A Div 6	3

R.C. Cunningham
Resident Bridge Engineer

cc: R.L. Schroeder
I.D. Merchant

Location	Previously Read 2-9-72	J. Cunningham Penn 4-2-71
258 ST4 D4	3.0	2.5 2.5
256 ST1 D4	3.0	2.5 2.5
249 ST4 D4	5.0	4.0 4.5
260 ST4 D4	6.0	5.0 3.5
237 ST4 D4	4.0	4.0 3.0
223 ST1 D2	6.5	3.5 3.0
5 TOP 81 D58	5.5	3.0 3.5

All Readings in Mils

Readings dated 2-9-72 were read on sheet date adjacent to readings taken on 4-2-71 and dated same.

See Sheet with readings dated 4-2-71 for additional material. Further comparison not made because remainder of material installed in structure and inaccessible.

Don Beem
2-9-72

[illegible] 4	25	Div 4	3.0	2.5
[illegible]	223	Div 2	6.5	3.0
[illegible]	131	2	5.0	4.0

Toaka Gage

Paint thickness

Location	PLANT MEASURE	C3+D MEASURE
Orthe Spar 16	3.7	3.0
	2.3	
	4.0	
Arch Strut Top R Pl. to C.S		3.0
Wing Skid 12% 16A	4.0	4.0
Column 6 10	4.5	4.5
Stringer 220 Div 2	4.5	4.5
Stringer 221 Div 2	5	5
Stringer 230 Div 2	4	4.5
Stringer 134 Div 1	6	5
Stringer 140 Div 1	2.1	2.5
	4.0	2.5
Stringer 139 Div 1	3.5	3.0
Stringer 147 Div 1	5.5	
Stringer 220 Div 4	6.0	3.0
Stringer 230 Div 4	6.0	3.5
Stringer 234 Div 4	5.0	4.5
Stringer 236 Div 4	3.0	2.5
Stringer 237 Div 4	4.0	3.0
Stringer 238 Div 4	3.0	2.5
Stringer 223 Div 2	6.5	3.0
Stringer 131 Div 2	4.0	

Location	Plan Measure	OSHD Measure
Stringer 2	J38 D10 3	3 3
Stringer 4	J39 D10 3	6 4
Stringer 2	J39 D10 3	4 3.5
Floor Beam 1	510 D10 58	5½ 6 3.5

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Ore.
Feb 22, 1971

SUBJECT: Paint gauge comparison

To: Memo to Files

On February 22, 1971, I accompanied R.O. Cunningham to Swan Island storage yard to make an inspection of paint thickness on fabricated material stored there. A Tooke paint inspection gauge was used and a comparison was made between mil readings by Pittsburgh Testing Labs in the fabrication plant and mil readings on the above date. A tabulation of the results is as follows:

Member	Mil readings by PTL	Mil readings on 2-22-71	Location
635 ST4 Div6	4	4	Exposed to weather
637 ST1 Div6	3 3/4	4	" " "
633 ST1 Div6	5	5	" " "
208 S47 Box	3½	3½	
208 S47 Box	3½	4	Sheltered from weather
Span 24	3	5	" " "
Span 19	3½	3½	" " "
Span 19	5	4½	" " "
632 ST1 Div6	5	5	Exposed to weather
632 ST1 Div6	6	6	" " "

Dan Bacon

cc: R. Schroeder
I. Merchant

RECEIVED
MAY 30 1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

7311

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE May 26, 1972

TO R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308

Federal-aid Project
No. I-405-8(23)304

FROM George M. Baldwin
Administrator of Highways
ORIGINAL SIGNED BY
by R. D. ASBURRY
L. H. Young
Programing Engineer

SUBJECT **Request; Change Order Approval**

Contract 7311, Extra Work Order No. 12

Project East Fremont Interchange, Unit B

Highway Stadium Freeway

County Multnomah

This Order covers the cost of placing a linseed oil deck sealant on all concrete bridge decks in accordance with Federal Highway Administration's Instructional Memorandum 40-2-70. A deck seal is necessary to protect the roadway surfaces from the effects of deicing salts.

This work was tentatively recommended for approval by the Federal Highway Administration Division Bridge Engineer, June 9, 1971.

Your approval as of June 9, 1971 is requested.

BMW:bb
Attachments

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MAY 8-1972
FOR FILING

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE May 5, 1972

TO Mr. H. S. Coulter
Metropolitan Engineer
M E T R O

7311

FROM ORIGINAL SIGNED
WALTER J. HART
Walter J. Hart
Bridge Engineer

NOTED
A. E. JOHNSON

SUBJECT East Fremont Interchange
Stadium Freeway
Multnomah County
Contracts 7310, 7311, 7312
Illumination of Railroad Yard

As you requested, we have taken illumination readings in the Union Pacific rail yard at the East Fremont Interchange site. Attached are five copies of drawing 25303, showing the points where readings were taken and a xerox listing of illumination levels at these various points.

From the low light levels observed it does not appear that we are causing any objectionable or hazardous shadows at the present. With the addition of roadway lighting on the structure, we will only be adding an average of 0.040 footcandles which should still not cause any problems.

If we do add lighting under the structures, it would appear that it should be done with underground wiring and light poles or underground wiring with conduit up the columns to lights attached to the columns.

Since either of the above methods could be done at any time, and at the present it doesn't appear that lighting is warranted, we would suggest that a wait-and-see attitude be taken. If this information is sufficient to convince the Railroad that lighting is not needed, so much the better.

DOC:dh
Attachments

cc A. E. Johnson
T. W. Litchfield

RECEIVED
MAY 8 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 12 1972
FOR FILING

7311

ae Johnson
cy Bridge
Const.
5-10-72

NOTES -- MEETING WITH KEN PETERSON
May 3, 1972 -- Seattle, Washington

The following are statements made by Ken Peterson respecting Canron's painting of steel with the inorganic zinc primer:

1. Terry Lowery is no longer with Canron. He left following completion of job for the Fremont Bridge.

2. Canron had painting problems involving peeling; the paint not adhering; and this would be at different areas, particularly on the inside of the girders (box), where they were painting with improper lighting.

3. Many changes were made after consultation with their supplier and manufacturer. The accelerator they used was put on at 1 gal. for 400 sq. ft. of coverage. The accellerator was used on the 193 paint.

4. I sat down with them many times. The painters put the paint on and never used a wet gauge to determine the millage.

5. State should review EN Jay's procedure proposals respecting the use of the accelerator, because it was applied in heavy quantities, it was running off the beams after application. They even mixed water with it at one time.

6. One thing that was outstanding was the variation in pot pressures adopted by the various applicator's (painters). Sometimes 10psi and at other times 20psi. Sometimes the pots had no gauges to indicate the psi.

7. The atomizing pressure varied from 40 to 50psi, depending on the individual paimters, many of whom used a sweeping method of application. Air agitators were used.

NOTED
A. E. JOHNSON

8. Canron was constantly changing applicators.

9. EN Jay recommended certain nozzle and pot pressure.

10. It was important that a wet application be had.

11. Elevation of the pot was not consistent. Change of pot location from high to on-ground took place without any change of psi. I called this to the attention of Canron, their answer was that the mechanics knew what they were doing.

12. Although they had agreed that the drying of the paint would be 9? hours, they would often put on the accelerator in a matter of minutes and then push the beams into the atmosphere. (Peterson said this is all covered in his weekly reports)

13. They did much experimentation. They even tried the accelerator on the 191 paint.

14. In the early stages they had no quality control, Supt. John Wolf was in charge and he made his foreman the quality control man.

15. Peterson complained of no proper quality control, eventually changed procedures in January, 1971--and then got quality control.

16. No applicator carried wet guages (specs call for this). No set pattern of painting used. I tried to get them to adopt a painting pattern, but had no luck with this.

17. My pattern of checking was to test through the paint line. I checked wet and dry.

18. They first blasted, then I checked. Then they would blow off dust and move into the paint room. They then painted the member; we tried to check as they went along.

19. His personal feeling was that Canron (front office) worked hard to do a good job.

Doesn't think EN Jay worked with them as they should have.

L. I. Lindas
Assistant Attorney General
and Counsel to Highway Division

LIL:sd

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MAY 2 1972
OFFICE OF
STATE HIGHWAY ENGINEER

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FOR FILING

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

DATE April 19, 1972

7311

TO Mr. Vernon E. Skoog
Controller
Accounting Section
B U I L D I N G
Attention: Mr. Paul Hatcher

FROM Walter J. Hart
Bridge Engineer

SUBJECT East Fremont Interchange
Contracts 7310 and 7311
Inspection Agreement with
Pittsburgh Testing Laboratory

Attached are final approved Invoices Nos. 62422 and 7075 for work done by Pittsburgh Testing Laboratory in conjunction with the inspection of structural steel on the above project. All work under this agreement, including submittal of required reports, has been accomplished in a manner satisfactory to the State.

Also attached is a copy of the letter that amended the agreement to revise the unit price so that a total payment of $201,592.50 could be made based on 12,448.4 tons as shown in the contract special provisions.

RJW/ag

Attachs.

cc A. E. Johnson
Ed Hardt
R. Shotwell
J. Jenkins

NOTED
A. E. JOHNSON

RECEIVED
APR 20 1972
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAR 28 1972
FOR FILING

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM
DEPUTY ATTORNEY GENERAL

7211

DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

March 22, 1972

TRIAL DIVISION

THOMAS D. O'DELL
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. MALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

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JAMES P. GRONAN, JR.
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LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN R. MCCULLOCH
FRANK G. MCKINNEY
EARL M. PRESTON
R. KEN ROBERTS
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA M. SORENSEN
ASSISTANT ATTORNEYS GENERAL

Mr. Edward L. Hardt
Asst. Metropolitan Engineer
P.O. Box 13160
Portland, OR 97213

Re: E. Fremont Interchange, Units A & B
Contracts 7310 and 7311; Price Agreement Stipulation

Dear Ed:

This is to confirm our phone conversation of this date. I talked with George Mead, counsel for Drake-Willamette respecting P.A. 14(A), and our objections to the contractor's reference therein to their letter to Robert E. Shotwell of November 17, 1971.

Mr. Mead is agreeable to his clients signing the P.A. with language which states simply that in signing the P.A. the contractor does so without waiver of his rights to present a claim. I have no objection to such wording.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas
Assistant Attorney General
and Counsel to Highway
Division

LIL:mjg
cc: A. E. Johnson
Robert Shotwell

RECEIVED
MAR 24 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

RECEIVED
MAR 7 - 1972
FOR FILING

7311

Portland, Oregon 97227
February 28, 1972

RE: Paint
East Fremont Interchange
Units A & B
Contract No's. 7310, 7311
Bridge No's. 8958-1, -?
Prefix No's. 626-1017, -1018
F.A.P. No's. I-405-8(22,23)304

MEMO TO FILES

The question has been raised by Canron Limited as to the possibility of a corrosive atmosphere in the Portland area being detrimental to the zinc paint system.

I met with Al Burkitt with the Air Quality Division of the Department of Environmental Quality. Mr. Burkitt's opinion was that there is no contaminant in the air in the vicinity of the structure that could possibly cause paint damage. I asked Mr. Burkitt if the proximity of Galvanizing plants to the structure could cause problems. His opinion was that the small quantities of sulphuric acid they use in their pickling process would not emit enough sulfurous acid to cause a problem.

I mentioned that the steel was painted and stored at Vancouver B.C. He said that due to considerable handling of bulk sulphur and plants in this area, the contamination in Vancouver should be investigated.

I also talked with Tom Bisphan with C.W.P.A. (Columbia-Willamette Pollution Authority). They took an air sample in the vicinity of the West Fremont Interchange on February 2, 1972. At this time the SO_2 content was .06 ppm or in his words practically none. He could think of no other contaminants that could cause injury to paint. I asked him of the possibility of contamination from pulp mills in the area. He stated that they were so far removed from the site that any pollutants would be well dispersed and be no problem. He felt that if there were enough pollutants in the area to cause problems with our paint that they would have received many complaints from people claiming damage to car paint and house paint.

It is my intention to contact Mr. Bisphan again and attempt to arrange for an air sampling on the structure.

Robert E. Shotwell
Resident Bridge Engineer

RES:def

CC: A.E. Johnson
L. Lindas
Walter J. Hart
H.S. Coulter
Jim Chidsey

RECEIVED
MAR 3 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
A. E. JOHNSON

RECEIVED
MAR 22 1972
FOR FIL

7311

#5

February 25, 1972

Willamette River Constructors
1740 N. W. Pandora Street
Portland, Oregon 97209

Gentlemen:

The State Highway Commission on February 22, 1972, considered your request for an extension of time on Contract Nos. 7310, 7311 and 7312 for work on the East Fremont Interchange on the Stadium Freeway in Multnomah County.

An interim extension of 210 days without assessment of liquidated damages was approved by the Commission.

Very truly yours,

Floyd Quary, Secretary
OREGON STATE HIGHWAY COMMISSION

FQ:kl

bc P. D. Morgan
Walt Hart
V. E Skoog
L. W. Fulton
Robert Shotwell
Federal Highway Administration

BRIDGE DIVISION
NOV 11 1971

OREGON STATE HIGHWAY COMMISSION

Engineers Recommendation Regarding Contractors Request

for

Increase in Number of Workdays

to

Complete Construction Contract

Investigation has been completed regarding the request (see reverse side) for an increase in the number of workdays within which to complete, without assessment of liquidated damages, the following project:

Contract No. 7311 Contractor Drake-Willamette, Joint Venturers

Highway Stadium Freeway

Section East Fremont Interchange Unit 2

Kind of Work Grade, Pave, Structures & Traffic Control Device

It is recommended that the request for increase in the number of workdays within which to complete said contract be **DENIED** or **GRANTED**. The reasons for such recommendation are as follows:

~~xxxx

E-220 (Rev.)—6M—8-64

OREGON STATE HIGHWAY COMMISSION

Contractors Request
for
Increase in Number of Workdays
to
Complete Construction Contract

Oregon State Highway Commission
Salem, Oregon 97310

Date October 18, 19 71

Gentlemen:

We, the undersigned, respectfully request an increase in the number of workdays from 796 days to 1,132 days, within which to complete our Contract No. 7311, without the assessment of liquidated damages. The said contract is described as follows:
UNIT B - EAST FREMONT INTERCHANGE SECTION - STADIUM FREEWAY HIGHWAY, MULTNOMAH COUNTY

The dates of the workdays during which prosecution of the work was actually prevented and the conditions or causes which actually prevented the prosecution of work on said dates were as follows:

1) See Drake-Willamette Letter of 9/23/71 to O.S.H.D. Requesting Time Extension listing reasons therefore
2) See Attached Supplemental Letter of 10/18/71

Respectfully submitted,

DRAKE-WILLAMETTE, JOINT VENTURERS
Contractor

By [signature]
P. E. Grant, Attorney-In-Fact

CONSENT OF SURETY

Date October 18, 19 71

We, THE TRAVELERS INDEMNITY COMPANY, as

surety on the bond guaranteeing the completion of the contract above-named and listed, hereby join in and consent to said request for an increase in the number of workdays, and hereby agree to remain fully bound as surety in all respects as if the number of workdays remained as stipulated in the original agreement.

[signature]
James F. Darby, Attorney-in-fact (SEAL)

[signature]
Resident Agent

RECEIVED
FEB 16 1972
FOR FILING

I-405-1(13)3:4
7311

February 15, 1972

Oregon State Highway Commission

Gentlemen:

490

Contracts 7310, 7311 and 7312
Request for Extension of Time
No. 5
February 22, 1972 Meeting

Drake-Willamette, Joint Venturers, contractor for the construction of the East Fremont Interchange on the Stadium Freeway (I-405) in Multnomah County, has requested that it be granted additional calendar days in which to complete the contract work without assessment of liquidated damages.

To generate competitive bidding, this work was advertised in three sections -- Unit A, Unit B, and Unit C. Drake-Willamette was the successful bidder on all three units, and has pursued it as one project.

All three of the above contracts were awarded September 11, 1969 and had a completion date of October 21, 1971. Unit A is now 92 percent complete and will govern the overall project completion. A shutdown order has been in effect, since the remaining work to be done (steel painting and concrete deck placement) is dependent upon favorable weather.

Short-term strikes, some necessary fabrication revisions, a request from the Federal level for deck sealing, and painting delays have been encountered. This is a Federal-aid project and thus far, we have the concurrence of the Federal Highway Administration for a time extension of 210 days, which covers unforeseen delays to the contractor due to strikes and steel ring revisions.

I recommend that the contractor be granted a 210-day extension of time without assessment of liquidated

damages. This is an interim extension of time, and it is expected that additional time due to other delays will be requested by the contractor at a later date.

This matter will be on the agenda for your consideration at the February 22 meeting.

Very truly yours,

George M. Baldwin
Administrator of Highways

By

Tom Edwards
State Highway Engineer

bc Floyd Query (enc.)
George M. Baldwin
F. B. Klaboe (enc.)
A. E. Johnson "
Walter J. Hart
F. D. Morgan
V. E. Skoog
L. H. Young
Gary Ross
Gary Sund
L. W. Rulien

RJW:ag/TE:ja

Form FHWA-121 (12-6)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: February 1, 1972

In reply refer to: 10-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
Contracts 7310, 7311 and 7312
Extension of Contract Time

Mr. Johnson, by letter dated January 25, has requested concurrence in a proposed 377-day extension of contract time. In order to avoid unnecessary complications in contract administration, and because of the current status of work on all three contracts, I agree that time delays on Unit "A" have a direct bearing on the other units. For this reason I concur in your proposal to treat the three contracts as one for time accounting purposes.

The data submitted in Mr. Johnson's letter includes time extensions for Extra Work Order No. 9 and change orders covering deck seal work, which has not yet been done. I take this opportunity to remind you that time could have been agreed upon at the time prices were negotiated and made a part of the approved orders. I suggest that you review current time administration procedures with this in mind.

I concur in the proposed time extension with the exception of Item 6 in your letter. The problems mentioned with zinc primer repairs and paint difficulties are not resolved as to responsibility. Consideration of time in connection with zinc and paint problems should be a part of the total analysis on that item.

Your support data covers a total of 439 days but the proposed extension is 377 days. I assume that the difference represents overlap of delay time. Excluding the painting delays, Item 6, from the recommended 377 day extension results in 210 days. For Federal participation purposes a 210-day extension is approved. I understand that there may be other factors that would warrant further consideration at a later date.

2-4-72
REFERRED TO
[illegible] Highway Engr.

NOTED
F. B. KLABOE

RECEIVED
FEB 3 1972
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
FILING

I-405-8(23)304
7311

January 25, 1972

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, OR 97308

467

Dear Sir:

Last Fremont, Contract 7310, Unit A, FAP I-405-8(22)304
Last Fremont, Contract 7311, Unit B, FAP I-405-8(23)304
Last Fremont, Contract 7312, Unit C, FAP I-405-8(24)304
Your File: 10-35-DA

Your January 6, 1972 letter has been received wherein you request more complete support data for a time extension request of 377 days for the above projects.

When the contractor's proposals for the above three units were accepted, the State also accepted a credit on the total cost of the project of $1,385,000. This credit was offered by the contractor as consideration for his being awarded all three contracts. It is felt that as far as completion dates are concerned, the three projects should be combined into one. Your concurrence in a 95-day time extension for Unit C in letters dated August 2 and August 17, 1971, stated that simultaneous completion of all units of the interchange is desirable.

The contract which has been delayed the longest should govern the completion date for all three. The percentage of contract work completed as of January 15, 1972 is as follows:

Unit A - 92%
Unit B - 97%
Unit C - 95.

Since Unit A is the largest contract and more work remains to be done on Unit A, it is felt that this unit will govern the overall project completion.

In view of the foregoing, I have listed below support data for delays to Unit A of the East Fremont Interchange. These delays total 439 days.

1. Strikes in Vancouver, B.C.

The strikes listed below took place in Vancouver, B.C., Canada, and delayed the delivery of structural steel to the Vancouver site. In all cases, the placement of column and cap concrete was such that the project was delayed because the structural steel components did not arrive when they were ready to be erected.

(a) The operating engineers and iron workers' strike took place at the Canron plant from February 12 to February 20, 1970. It prevented final fabrication of girders which had arrived from Japan.

(b) The Canadian Merchant Service Guild struck against the British Columbia Tugboat Owners Association from May 3 to June 15, 1970. It halted all marine towing on the British Columbia coast, which prevented shipments of steel to Oregon and prevented the receiving of semifabricated girders from Japan.

(c) The boiler makers and marine workers' strike occurred from May 4, to May 11, 1971. There was no production in either of the Canron plants, which prevented both girder and steel ring components from being shipped.

Contractor Delayed 59 Days.

2. Painters' Strike.

The placement of deck concrete on the project, a critical path item at this time, was delayed from June 3 to June 28, 1971.

Contractor Delayed 25 Days.

3. Carpenters' Strike.

The forming for deck slabs, also a critical path item at this time, was delayed because of a carpenters' strike at the job site from June 29 to July 13, 1971.

Contractor Delayed 15 Days.

4. Steel Ring Revisions.

Steel ring revisions were necessary to prevent overstress at certain bent locations. The contractor was notified and told to hold up fabrication of these rings on February 17, 1971. On May 13, 1971, the revised steel members were delivered to the job site. The contractor was unable to erect this group of structural steel as originally planned. Maximum use of equipment and labor could not be effected because of this revision work, nor could increased equipment and labor forces be utilized as planned. The total time that job progress was delayed was 126 days; 87 days to the time when the steel was delivered and 39 days for performance of the special erection work under Extra Work Order No. 9. Eight days, however, overlapped with the boiler makers and marine workers' strike at Vancouver, B.C.

Contractor Delayed 118 Days.

5. Concrete Deck Seal.

When the nation-wide program initiated by the Federal Highway Administration of sealing bridge decks was begun, change orders were written to seal the decks with linseed oil. This is added work and requires a minimum temperature of 45° and a thoroughly dry deck. It will be the last work to be done and it is estimated that it will take 55 calendar days to treat the 484,000 square feet of deck.

Estimated Contractor Delay 55 Days.

6. Painting.

Vinyl painting following exterior zinc primer repairs on the structural steel cannot start until temperature and humidity conditions improve, since the painting is dependent upon dry and relatively warm weather. It is estimated that this painting cannot begin until approximately April 15, 1972. The project is delayed since the remaining items of work, the signing and illumination, must follow behind a certain distance from the painting to avoid damage to the finished work items.

Estimated Contractor Delay 167 Days.

With your concurrence I propose to recommend to the Highway Commission that the contractor be granted a 377-day extension on all three contracts of the East Fremont Interchange, all without assessment of liquidated damages. This should be considered an interim extension as the delays occasioned by the bubbling and blistering of the vinyl paint has not been evaluated and should additional time be necessary, we will give this item further consideration.

Very truly yours,

George M. Baldwin
Administrator

By

A. E. Johnson
Assistant State Highway Engineer

bc George M. Baldwin
Tom Edwards
F. B. Klaboe
Walt Hart
H. S. Coulter
R. O. Cunningham

RJW:dh ja

RJW

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

TO : Mr. George M. Baldwin, Administrator of Highways
Salem, Oregon

DATE: January 6, 1972

In reply refer to: 10-35-DA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project I-405-8(22-24)304
East Fremont Interchange
Stadium Freeway
Contracts 7310, 7311 and 7312
Extension of Contract Time

NOTED
R. E. SIMPSON

Careful study and consideration have been given to Mr. Johnson's December 21 letter requesting concurrence in time extensions on these three contracts. Mr. Johnson's letter proposes a 377-day extension to each contract.

Federal participation cannot be approved based on the data submitted with your request. Action by the Federal Highway Administration will be deferred pending receipt of detailed support data to justify your proposed time extensions.

1-11-72
REFERRED TO
BY DEPUTY STATE HIGHWAY ENGINEER

RECEIVED
JAN 1 0 1972
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
JOE EDWARDS

RECEIVED
JAN 1 4 1972
BRIDGE DIVISION

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

RECEIVED
JAN 17 1972
FILING

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

I-405-8(23)204
7311

January 13, 1972

Howard, Needles, Tammen & Bergendoff
1805 Grand Avenue
Kansas City, Missouri 64108

Attention: Mr. Jack Kopetz

NOTED
A. E. JOHNSON

Gentlemen:

Girder Joints
East Fremont Intch., Unit B
Contract 7311
Bridge No. 8958B

Attached is a copy of a letter from our Resident Bridge Engineer to the contractor on the subject project, relative to corrective measures required to provide expansion joint clearance.

I would like your comments on this letter especially in the area of notching the diaphragm flanges. I am concerned about structural problems with the link support plate bearings which might arise from such notching.

Very truly yours,

George M. Baldwin
Administrator of Highways
By ORIGINAL SIGNED
R.W. ELLISON
R. W. Ellison
Bridge Administration Engineer

RWE/ag
Attach.
cc: A. E. Johnson
E. Hardt
R. Shotwell
L. L. Wallace

RECEIVED
JAN 14 1972
OFFICE OF
STATE HIGHWAY ENGINEER

Portland, Oregon 97227
December 31, 1971

RE: Girder Joints
East Fremont Interchange Unit B
Contract No. 7311
Bridge No. 8958-2
Prefix No. 626-1018
F.A.P. No. I-405-8(23)304

Drake-Willamette, Joint Venturers
1201 North Loring Street
Portland, Oregon 97227

Attention: Jack Gray

WE have rechecked the expansion joints on Unit B for clearance now that the balance of concrete deck is poured.

It appears at this time the following minimum corrective measures are required.

EW Joint # 2 @ pier 3, Girder A - Trim bottom flange 1", trim webs 1" at bottom to 0" at top, notch diaphragm 1" to clear links, top cantilever side of joint.

EW Joint # 2 @ pier 3, Girder B - Trim bottom flange 1", trim webs 1" at bottom to 0" at top.

EW Joint # 3 @ pier WE-8, Girder A - Notch diaphragm 1" to clear links.

SW Joint # 2 @ pier 8 Girder B - Trim top flange 1" and bottom flange 1½", trim web 1" at top to 1½" at bottom.

SW Joint # 2 @ pier 8 Girder B - Trim bottom flange 1", trim web 1" at bottom to 0" at top.

WS Joint # 2 @ pier 4 Girder A - Trim, top and bottom flange 1", trim webs 1" from top to bottom. Notch diaphragm flanges 1" to clear lin ks.

WS Joint # 2 @ pier 4 Girder B - Trim top and bottom flanges 1", trim webs 1" form top to bottom. Notch diaphragm flanges 1" to clear links.

RECEIVED
JAN 3 1972
BRIDGE DIVISION

WN Joint # 3 @ pier WE-8 Girders A and B - Notch diaphragm flange 1" on contilever side of joint to clear link.

NW Joint # 3 @ pier 5 girder A - trim bottom flange 1", trim web 1" at bottom to 0" at top. Notch diaphragm flange 1" on cantilever side of joint to clear link.

NW Joint # 3 @ pier 5 girder B - Trim bottom flange 1", trim web 1" at bottom to 0" at top.

NW Joint # 4 @ pier WE-8 Girder A - Notch diaphragm flange 1" on cantilever side of joint to clear link.

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

BY: Ted Inloes
Ted Inloes
Ass't. Res. Br. Engr.

TI:def

CC: Ivan D. Merchant
Ed Hardt
Files.

NOTED
JAN 1972

RECEIVED
JAN 3 1972
BRIDGE DIVISION

I-405-8(23) E. Fremont Interch. Sec., of 1969
304 Stadium Freeway, in Portland
#7311 (Unit B) Folder #1

C&A 3860
C&A 3926

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JAN 10
FOR FILING

I-5-8(23)304
7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
December 29, 1971

SUBJECT: East & West Fremont Interchanges
Rust Bond 6C Primer for Cad Bolts

To: John Jenkins
Materials Engineer
State Highway Building
Salem

ATTENTION: James Chidsey

NOTED
A. E. JOHNSON

Attached you will find a letter from Ralph Hannan, Project Manager for Anderson-Hannan & Company, together with a letter from Industrial Painting and Sandblasting Company, the painting sub on the West Fremont project. This correspondence deals with my approval of the use of Rust Bond 6C vinyl primer with the provision that a vinyl wash be used with this material.

Please note that this correspondence mentions that the Carbolene representative, Dave Muth, does not recommend the use of the vinyl wash for the vinyl primer. The reason that I requested that it be used was on your advice.

Would you please let me know whether or not the vinyl wash material is required to be used under the vinyl primer for cad bolt coating.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

Encs

cc: John Howard
Robert Shotwell w/attach.
Ivan Merchant "
~~A.~~ E. Johnson "

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OFFICE OF
STATE HIGHWAY ENGINEER

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Form FHWA-121 (12-67)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

I 405-8(23)304
7311

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

DATE: December 28, 1971

In reply refer to: 08-35-FA

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(22 & 23)304
East Fremont Interchange Units A & B
Steel Inspection Contract with Pittsburg Testing Laboratory

Based on the information furnished with Mr. Merchant's December 21, 1971 letter we concur that the proposed amendment to the Consultant Agreement with the Pittsburg Testing Laboratories for the shop inspection of the fabrication of the structural steel for the subject project is in order to correct an obvious error and is therefore approved.

cc: Region (08-00.331)

cy to Bridge 1-5-72

NOTED
A. E. JOHNSON

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OFFICE OF
STATE HIGHWAY ENGINEER

AEJ

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

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I-405-8(23)304
7311

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97227
December 23, 1971

SUBJECT:
East Fremont Interchange Units A, B, C
Contract No's. 7310, 7311, 7312
Prefix No's. 626-1017, -1018, -1022
Bridge No's. 8958-1, -2, -3
F.A.P. No's. I-405-8(22, 23, 24)304

To:
Mr. R.L. Schroeder
Metropolitan Engineer
5821 N.E. Glisan Street
Portland, Oregon 97213

Attention: Ed Hardt

At a recent meeting with Jack Gray of Drake-Willamette, Joint Venturers a slowdown in construction on the East Fremont Contracts was discussed.

The slowdown is primarily due to winter weather not allowing painting of structural steel to proceed. The need to paint the interior of the trapezoidal box beams prior to concrete deck placement is the most critical problem.

Our last deck pour took place on December 17, 1971. This completes deck work on Unit A to the following locations:

EW line between Pier 10 - Pier 11
WE line between Pier 10 - Pier 11
SW line between Pier 1 - Pier 2
WS line between Pier 1 - Pier 2

Therefore deck remaining to be poured is from these locations to Pier 2E.

All deck work is complete on Unit B and Unit C.

The contractor has cut his work force to about 40 men and work progresses on installation of deck expansion joints, parapet rail concrete finishing and other miscellaneous items that can be performed.

Based on last years weather I would assume that painting would commence in March, deck concrete would follow and would take 3-4 months. The remaining work after decks should see the job complete in late summer.

Very Truly yours,

Robert E. Shotwell
Resident Bridge Engineer

RES:rsr

CC: A.E. Johnson w/encl.
Ivan D. Merchant w/encl.
Files (3).

NOTED
A. E. JOHNSON

RECEIVED
JAN 3 1972
OFFICE OF
STATE HIGHWAY ENGINEER

DONALD M. DRAKE COMPANY
1740 N.W. Flanders Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

December 8, 1971

Oregon State Highway Department
Metro Engineer
1101 N. Russell Street
Portland, Oregon 97227

Attention Mr. Robert Shotwell, Resident Engineer

Re: O.S.H.D. Contracts Nos. 7310, 7311 and 7312
Time Extension Requests

Gentlemen:

At a brief meeting with you on November 29, the impossibility of continuing full-scale construction operation at the subject project was discussed.

Primary inability to proceed is a function of inclement weather which has prevented painting work from being completed on the interiors of girders in units WE 5 and EW 4.

It is mutually understood that the Oregon State Highway Department concurs in this thinking.

Yours very truly,

DRAKE-WILLAMETTE JOINT VENTURERS

John R. Gray,
Project Manager

METROPOLITAN ENGINEER
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RECEIVED
DEC 23 1971

FOR FILE NO.

I 405-8(23)304
7311

Hum. Dist. C

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
December 22, 1971

To: A. E. Johnson
Ass't. State Highway Engineer
State Highway Building
Salem

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Epoxy Paint for Cadmium Plated Bolts

You advised me today (12-21) of criticism regarding the lack of planning for solving the winter time--cadmium plated bolts--epoxy paint problem. I feel that this criticism is unjust for the following reasons.

Epoxy paint was not called for by our project specifications. It appeared on the jobs as a result of a package change requested by the Contractors in order to avoid the problems associated with field sandblasting of high strength bolts. Problems connected with this epoxy paint then, are properly the responsibility of the Contractor.

When it became apparent late last summer that the Contractors would not complete structural steel painting this year, it also became apparent to the writer that applying epoxy paint in the winter time would be a problem. Not having the technical background to be able to make an independent judgment regarding the relative merits of brands or types of paints, I look to our Materials Laboratory for this type of advice. During the last summer I had numerous conversations with our Lab people regarding the epoxy paint problem in an attempt to find an acceptable solution. I happened to have a diary entry on September 13, indicating one of these conversations where two suggestions by the Contractor, namely vinyl primer and organic zinc, were discussed. The Lab people felt that neither of these were the equivalent of the three mils of inorganic zinc originally specified. I inquired as to whether there was any other known paint which could take the place of the epoxy and the answer was in the negative. At that point, I advised both resident engineers to tell their contractors that if they wished to discuss these alternates or any others with us that I would be happy to arrange a meeting with our Laboratory people. No response was received from that invitation.

On November 19, I put out a memo to the files with copies to your office, the Bridge office and to the Laboratory setting forth the latest status on the cad bolt problem mentioning the alternates of heating the members to be painted so that the epoxy paint could be used in the winter and of falling back to the original intent of the specs whereby the bolts would be sandblasted and painted with inorganic zinc. The purpose of this memo was to alert everyone that the problem still existed hoping that perhaps someone could come up with an answer that I had overlooked. None came.

NOTED
A. E. JOHNSON

Cy. Maine 12-23-71

BP 932475-734

I am now advised by the Laboratory that they feel the vinyl primer will give us a job that we can live with and so we are proceeding on that basis.

I have always felt that the Contractors should take the initiative in solving the epoxy paint problem rather than this office, although we have always attempted to cooperate to the fullest extent with anybody who showed an interest in solving the problem. With the limited time that I have available to devote to this problem, I don't know what more I could have done towards solving it.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: Tom Edwards
Ivan Merchant
John Jenkins
John Howard
Robert Shotwell

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OFFICE OF
STATE HIGHWAY ENGINEER

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I-405-8(23)304
7311

December 21, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
P. O. Box 300
Salem, OR 97308

Dear Sir:

East Fremont Contract 7310 (Unit A) FAP I-405-8(22)304
East Fremont Contract 7311 (Unit B) FAP I-405-8(23)304
East Fremont Contract 7312 (Unit C) FAP I-405-8(24)304

Allotted calendar days set up in Contracts 7310 and 7311 forecast a completion date of October 21, 1971, and July 18, 1971 for Contract 7312.

The contractor has suffered innumerable delays, some due to conditions under his control and some due to conditions beyond his control, and has presented a request for an extensive extension of time. We feel this request merits action at this time. Data pertinent to this request is as follows:

Item	7310	7311	7312
Contract calendar days, starting 9/27/69	755	755	660
Authorized time extension	-0-	-0-	95
Total authorized calendar days	755	755	755
Authorized calendar days expire	10/21/71	10/21/71	10/21/71
Estimated completion date	11/1/72	11/1/72	11/1/72
Estimated calendar days total to 11/1/72	1,132	1,132	1,132
Excess-Estimated calendar days over authorized	377	377	377
Delays-Actual and anticipated See schedule attached	456	488	318
Contractor's request	368	337	365

Intermediate completion dates specified in Contracts 7310 and 7312 were waived by price agreements on both contracts.

The apparent intent of the contractor's request was to advance the completion dates for the three contracts to on or about November 1, 1972.

The work is currently under a shutdown order effective about November 1 because of weather conditions unsuitable for satisfactory painting. It is expected that this shutdown order will be in effect, except for possible intermittent days, until about mid-April, 1972.

Unit A, Contract 7310, will probably be the control unit in completion of the three contracts. Deck slab pouring on this unit cannot proceed until the interior of the steel girders are given the final vinyl coat.

Major work to follow completion of all of the painting will be signing, parapet railing, and lighting poles and luminaires. This work can be dovetailed behind the start of vinyl painting but must follow behind a certain distance to avoid damage to finished work items.

During the progress of the work 22 price agreements and orders for extra work in an aggregate amount of $137,941 were written on Contract 7310; 21 in the amount of $78,368 on Contract 7311; and 32 in the amount of $45,302 on Contract 7312. It is not possible to determine the effect of these numerous orders involving plan changes and extra work on the contractor's construction schedule. It is felt that the allowances made for some of the major items, as listed in the schedule of delays, is a reasonable appraisal of the delays occasioned by the orders. It may be necessary to consider some of the other orders at a later date.

With your concurrence, I propose to recommend to the Highway Commission that the contractor be granted a 377-day extension on Contract 7310; a 377-day extension on Contract 7311; and a 377-day extension on Contract 7312, all without assessment of liquidated damages. This brings the three contracts to a common completion date.

This should be considered an interim extension, as the delay occasioned by the vinyl paint problem has not

been evaluated and should additional time be necessary, we will want to give this item consideration.

In view of the recent developments in progress on the Murphy Pacific contract for the superstructure within the project limits, it is apparent that the entire East Fremont complex will be ready for traffic well before it can be put to full use by traffic.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

bc R. L. Porter
Tom Edwards
Ivan Merchant
R. L. Schroeder

CAG:dh ja

DELAYS

No.	Item		7310	7311	7312
1	Operating Engineers and Iron Workers strike at Canron plant, Vancouver, B.C. Feb. 12, 1970 to Feb. 20, 1970		8	8	
2	Tugboat strike in Vancouver B.C. harbor Canron plant May 3, 1970 to June 15, 1970		43	43	
3	PA 10 - Steel ring revision Hold up in fabrication from Feb. 17, 1971 to May 13, 1971, which is the period of time the revised drawings were received to delivery date. Total time elapsed 87 days - 8 days overlap with Item 4		75		
	Estimated delay OEW9 - Ring WE9		6		
	Estimated delay OEW9 - Ring WE12		27		
	Estimated delay OEW9 - Ring 2E		6		
4	Strike - Canron plant Vancouver, B.C. May 4, 1971 to May 11, 1971		8	8	
5	Painters strike - Jobsite June 3, 1971 to June 28, 1971		25	25	25
6	Carpenters strike - Jobsite June 29, 1971 to July 13, 1971		15	15	15
7	Revised deck pour sequence Estimated time to move into Spans WE-13, EW 11 and EW-13 to perform this work along with OEW#9 - Considered to be interruptions to normal work schedule		21		
8	Redesign deck expansion joints				
	Time for fabrication (Start 7/6/71)	126			
	Time for installation(18jts. @ 9 da.)	162			
		288			
	Fab. time lapse 7/6/71 to compl.-106			182	
9	Construct temporary guard rail on SE line				8

No.	Item	7310	7311	7312
10	Modify deck expansion Joints (PA13) To fab. shop 7/20/71 and returned 10/1/71			73
11	Concrete deck sealing Projected OEW - Estimate	55	40	30
12	Stop Work Order - Weather Unsuitable for painting 11/1/71 to 4/15/72	167	167	167
	Total delays	456	488	318

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OREGON STATE HIGHWAY DIVISION

I-405-8(23)304

HIGHWAY BUILDING • SALEM, OREGON • 97310

7311

December 21, 1971

Mr. R. E. Simpson
Division Engineer
Federal Highway Administration
477 Cottage St. N. E.
Salem, Oregon 97308

Gentlemen:

East Fremont Contract(7310 Unit A) I-405-8(22)304
East Fremont Contract(7311 Unit B) I-405-8(23)304
Steel Inspection Contract (PTL)

Our agreement of December 23, 1969 with Pittsburgh Testing Laboratory which you approved December 22, 1969 contains an error in Article IV 1 (a), Page 8, which must be corrected.

The nature of the error and how it occurred is explained in my letter to L. I. Lindas, Chief Counsel of September 2, 1971, copy attached.

Mr. Lindas' opinion as to what the State owes Pittsburgh Testing Laboratory is stated in his letter of September 17, 1971 to me per copy attached.

We are amending Article IV 1 (a) of the agreement per our letter of November 24, 1971 to Pittsburgh Testing Laboratory. This amendment is satisfactory to Pittsburgh Testing Laboratory as noted by their endorsement of my letter of November 24, 1971.

This matter has been discussed previously with Mr. Schell and Mr. Green of your office.

May I have your concurrence to the amendment?

NOTED
A. E. JOHNSON

Very truly yours,

R. L. Porter
State Highway Engineer
By

Ivan D. Merchant
Bridge Engineer

CAG/ag (Attachs.)
cc: A. E. Johnson w/attachs.
P. Hatcher-Acctg. w/attachs.
Region-Metro w/attachs.
R. Shotwell w/attachs.

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DEC 23 1971
OFFICE OF
STATE HIGHWAY ENGINEER

OREGON STATE HIGHWAY DIVISION

RECEIVED
NOV 30 1971
PITTSBURGH TESTING LAB
PORTLAND, OREGON

HIGHWAY BUILDING • SALEM, OREGON • 97310

November 24, 1971

Pittsburgh Testing Laboratory
2419 S. E. Powell Blvd.
Portland, Oregon 97202

Attention: Mr. Don Scott

Gentlemen:

East Fremont Steel Inspection
Agreement dated 23 December, 1969

I have your final invoice # 7075 billing us for work under our agreement. It is noted the final tonnage figure and the unit price for the same is in line with Article IV 1 (a), page 8 of the agreement, i.e. 13557 tons at $14.87 per ton for an amount of $201,592.50. Further language in the Article IV 1 (a) precludes the State from paying for inspection of a tonnage greater than that stated in the contract special provisions.

The tonnage stated in the contract special provisions is:

East Fremont Unit A	16,156,000 lbs.
East Fremont Unit B	8,740,800 "
	24,896,800 "or
	12,448.4 tons

It is noted your proposal of December 16, 1969, which we accepted, develops the figures used in the agreement, i.e. 13,557 tons at $14.87 for a total of $201,592.00. Had we noticed the discrepancy in the tonnage figures at the time we were discussing the proposal we would have called it to your attention and given you a chance to review and correct your figures.

It is our attorney's opinion that the State owes you the dollar amount of your proposal, that is $201,592.50 for the item.

We propose, by this letter, to amend the figures in Article IV 1 (a) as follows:

12,448.4 tons at $16.194+ for a total payment of $201,592.50.

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DEC 15 1971
PITTSBURGH TESTING LAB
PORTLAND, OREGON

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DEC 17 1971
BRIDGE DIVISION

If this amendment is satisfactory to you, please indicate your approval by endorsing the original of this letter in the space provided and return the same to me.

If satisfactory to you, I will correct your final bill 7075 in accordance with the above amendment and pass it along to our accounting section for payment.

Very truly yours,

R. L. Porter
State Highway Engineer
By
Ivan D. Merchant
Ivan D. Merchant
Bridge Engineer

CAG/ag

Amendment satisfactory to
Pittsburgh Testing Laboratory
by Donald R. Scott 12-15-71

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DEC 15 1971
PITTSBURGH TESTING LAB
PORTLAND, OREGON

RECEIVED
DEC 17 1971
BRIDGE DIVISION

LEE JOHNSON
ATTORNEY GENERAL

JAMES W. DURHAM, JR.
DEPUTY ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
100 STATE OFFICE BUILDING
SALEM, OREGON 97310
TELEPHONE: (503) 378-6313

September 17, 1971

TRIAL DIVISION

THOMAS D. O'DELL
CHIEF TRIAL COUNSEL

WALLACE CARPENTER
ASSISTANT CHIEF TRIAL COUNSEL

LEONARD I. LINDAS
KEITH R. HALONEY
ASSISTANT ATTORNEYS GENERAL AND COUNSEL

JAMES A. BLEVINS
JAMES P. CRONAN, JR.
QUINTIN B. ESTELL
LAWRENCE J. HALL
LESLIE B. HAMPTON
ROBERT A. HOLLAND
DONALD J. HOWE
JOHN B. MCCULLOCH
FRANK C. MCKINNEY
EARL H. PRESTON
R. KENT ROBERTS
JAMES A. SANDERSON
JACK L. SOLLIS
CARLOTTA H. SORENSEN
ASSISTANT ATTORNEYS GENERAL

Mr. Ivan Merchant
Bridge Engineer
Oregon Highway Division
Salem, Oregon 97310

Re: Agreement: State & Pittsburgh Testing Laboratory - 12-23-69. Shop Inspection of Structural Steel - East Fremont Approach Complex.

Dear Mr. Merchant:

By letter of September 2, 1971, you've requested my view of the above agreement to ascertain if Pittsburgh Testing Laboratory is entitled to receive the full contract sum of $201,592.50 for the inspection performed.

The pertinent facts follows:

1. The steel to be inspected was to be fabricated in Vancouver, B. C. and in four cities in Japan.

2. Pittsburgh Testing Laboratory submitted its proposal to do the inspection, estimated to be 13,557 tons of steel at $14.87 per ton, or $201,592.00.

3. This proposal was based upon man hours needed to perform the work, plus mobilization and travel expense.

4. A Consultant Agreement was entered into between State and Pittsburgh Testing, which Agreement incorporates the estimated tonnage at $14.87 per ton or $201,592.50, plus certain other work not herein involved.

5. The Agreement further provides payment will be made for the actual quantity inspected, based upon the "State's estimate of tonnage involved as stated in subject contract special provisions".

Discussed with A-E 9/22, Engineer Fitzer,

6. The special provisions provide for payment on the basis of net tonnage of 12,448.4 tons, rather than gross tonnage of 13,557 tons contained in Pittsburgh Testing's Proposal and the Agreement.

7. It was necessary to inspect the gross tonnage since there was no way to know what steel was to make up the net tonnage at the time of inspection.

8. The state was aware the net tonnage would be 12,448.4 tons both at the time of receipt of Pittsburgh Testing's Proposal and the execution of the Consultant Agreement on December 23, 1969.

9. Since it was necessary to inspect the gross tonnage and since the proposal was based upon man hours needed to perform the inspection, the contractor, if informed of payment being based upon a net tonnage, would have of necessity increased the rate per ton to reach the sum of $201.592.50.

I do not view the foregoing as a contractor's error, but rather as an omission on our part in failing to catch the assumption he would be paid for the gross tonnage inspected. I am informed that had we noted the discrepancy in either the Proposal or Agreement, we would have called it to the contractor's attention and would have permitted him to change the same.

I am further informed we were aware the inspection would have included the gross tonnage, although we were only going to pay on the basis of net tonnage.

It is my opinion the facts herein affirm that equity and good conscience, as well as a legal duty, indicate we should make note of the foregoing and compensate the consultant on the basis of the agreed price of $201,592.50.

Very truly yours,

LEE JOHNSON
Attorney General

Leonard I. Lindas
Assistant Attorney General
and Counsel to
Highway Division

LIL:jm

FORM E-20

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

September 2, 1971
Salem, Oregon

To:

SUBJECT:

L. I. Lindas
Chief Counsel
BUILDING

We have an agreement (copy attached) with Pittsburgh Testing Laboratory for the shop inspection of structural steel for the East Fremont approach complex, State Contracts 7310 and 7311, that contains an apparent error in fee schedule item (a) - see page 8 of the agreement.

Pertinent facts concerning this apparent error are as follows:

Steel for West Fremont Interchange complex, our Contract 7214 was fabricated by Canron Limited of Vancouver, B.C. We negotiated an agreement with Pittsburgh Testing Laboratory to inspect this fabrication.

Canron Limited obtained the order for fabrication of the steel for the East Fremont Interchange complex, our Contracts 7210 and 7211, and advised us that a part of the steel would be partially fabricated by four different firms at five different locations in Japan with the balance of the steel required and final fabrication at their Vancouver, B.C. plant.

Inasmuch as we had commissioned Pittsburgh Testing Laboratory to inspect the steel for the West Fremont complex, and fabrication work on both jobs would be going on at the same time at Canron's plant, it was our desire to have one agency inspect both jobs for the sake of uniformity of work, administration, etc., we requested Pittsburgh Testing Laboratory to make us an offer on the inspection of the East Fremont steel.

Pittsburgh Testing Laboratory made us an offer per their letters of December 10, 1969 and December 16, 1969, copies attached.

In preparing their offer Pittsburgh Testing Laboratory used time of fabrication and tonnages of steel data obtained from the various fabricators involved, arrived at an overall estimated cost of $201,592.00 for the work and back figured that amount into a price per ton, as stated in the agreement.

We accepted this offer and wrote it into the agreement.

The error occurs in the tonnage figure used in their offer and the agreement.

The tonnage used in figuring the price per ton should have been 12448.4 tons, the State's estimate of the amount of steel involved. Refer to page 48, Contract 7310 which shows 16,156,000 lbs. or 8078 tons and page 71, Contract 7311 which shows 8,740,800 lbs. or 4370.4 tons for a total of 12448.4 tons for both contracts. Had the lower tonnage figure been used in figuring the price per ton that price per ton would be slightly higher. Had we noticed the error at the time the offer was accepted and the agreement prepared we would have given Pittsburgh Testing Laboratory a chance to reconsider their offer.

It is not our intention to short change Pittsburgh Testing Laboratory in any way. I feel they are entitled to essentially the $201,592.00 quoted, because a total figure such as this is the only way Pittsburgh Testing Laboratory could arrive at their cost for the work.

To explain the difference in the tonnage figures the fabricator normally considers the tonnage involved as that computed from the stock required to do the job and the State's estimate is based on the steel remaining in the completed work. This is the stock required, less trim, cutouts, copes and open holes.

What steps can we take to amend the agreement to the end that we can legally pay Pittsburgh Testing Laboratory their estimated cost of the work?

I would like to discuss this with you at your convenience.

Ivan D. Merchant
Bridge Engineer

CAG/ag
Attachments

RECEIVED
DEC 23 1971
ENGINEERING

Gen. Files

OREGON STATE HIGHWAY DIVISION

METROPOLITAN SECTION
5821 N. E. Glisan Portland, Oregon 97213 Phone 229-6971

December 20, 1971

I-405-8(23)304
7311

Drake-Williamette
1201 North Loring Street
Portland, Oregon 97227

Re: East Fremont Interchange
Contract No. 7310 & 7311

Gentlemen:

My letter to you dated December 3, suggested that you look into an epoxy primer handled by the Miller Paint Company in Portland as a material that could be applied over the cadmium plated bolts at temperatures lower than 50 degrees. The West Fremont Contractor has subsequently determined that this material is not satisfactory for below 50 degree temperatures in that it requires temperatures in excess of 40 degrees for seven days in order to properly cure and it is not possible to guarantee during our winter months that this temperature will prevail for a week in the future.

The West Fremont Contractor has requested and we have given approval subject to some final testing by our Laboratory which should be completed in a week or so to substitute Carbolene's Rust Bond 6C vinyl primer in lieu of the epoxy. For cadmium plated bolts inside the box sections, this primer can be applied directly to the bolt. For exterior bolts, a vinyl wash primer must be applied on the cadmium plating in advance of the vinyl primer in order to assure proper adhesion. .These materials are to be used according to the manufacturer's recommendations.

If you wish to make a written request for the use of this material, such a request would be approved with the understanding that no additional cost to the State would accrue due to such change.

A. E. JOHNSON

R. L. Schroeder
Metropolitan Engineer

RECEIVED
DEC 23 1971
OFFICE OF
STATE HIGHWAY ENGINEER

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: A. E. Johnson
Ivan Merchant
John Jenkins
R. E. Shotwell

City's Mimeo

FREMONT BRIDGE COMPLEX PROJECT INFORMATION

PROJECT	CONTRACT NO.	CONTRACTOR	DATE AWARDED	DATE COMPL.	LENGTH (LANE FT.)	QUANTITIES STRUCT. STEEL (LBS.)	QUANTITIES CONCRETE (CY)	QUANTITIES REINFORCE. (LBS.)	ENGINEERING CONSULTANT	EXPENDITURES CONTRACT AMOUNT	EXPENDITURES TOTAL* AMOUNT	EXPENDITURES AMOUNT FOR ENGINEER CONSULT.
Fremont Bridge Pier Const.	7124	Peter Kiewit Sons' Co.	2-27-68	5-13-70	N/A	520,000	38,000	1,950,000	Parsons, Brinkerhoff, Quade & Douglas	3,370,072	4,188,200	714,000
Fremont Bridge Superstructure	7276	Murphy-Pacific Enterprises	7-3-69	Est. 1973	17,300	17,450,000	3,910	1,010,000	"	21,833,293	24,054,902	Included in above
West Fremont Interchange	7214	Anderson-Hannan	4-29-69	Est. 1972	36,000	15,952,000	65,647	19,150,000	Howard, Needles, Tammen & Bergendoff	18,893,289	20,868,473	1,653,642
West Fremont Interchange (Unit 2)	7623	Drake-Willamette	8-26-71	Est. 1972	Included in above	126,200	11,270	3,885,300	"	3,270,487	3,715,410	Included in above
East Fremont Interchange, Unit "A"	7310	Drake-Willamette	9-11-69	Est. 1972	32,000	16,156,000	19,817	4,388,500	"	12,994,987	13,928,738	Included in above
East Fremont Interchange, Unit "B"	7311	Drake-Willamette	9-11-69	Est. 1972	Included in above	8,740,800	15,725	2,989,400	"	8,982,856	9,458,459	Included in above
East Fremont Interchange, Unit "C"	7312	Drake-Willamette	9-11-69	Est. 1972	Included in above	352,500	8,252	2,712,000	"	2,007,349	2,218,094	Included in above
TOTALS						59,297,500	162,621	36,085,200		71,352,333	78,432,276	2,367,642

TOTAL COST FREMONT BRIDGE COMPLEX $80,799,918

* Includes Additional Anticipated Items, Contingencies, and Construction Engineering

NOTED
TOM EDWARDS

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DEC 2 - 1971
FOR FILING

I 405-8(23)204
7311

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
November 19, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Epoxy Coating for Cadmium Plated Bolts

Painting operations on the subject projects are likely to be held up this winter due to the problem of applying epoxy mastic over the cadmium plated bolts in the winter time. The specifications for the epoxy paint do not allow it to be applied when the temperature is below 50 degrees. The painters have been searching for an alternate to the epoxy coating that will allow them to perform this work when the temperature is below 50 degrees.

Dave Muth of the Carboline Company has been pushing a vinyl primer called Rust Bond 60. At the moment the laboratory has an inorganic zinc coated sample of steel left by Mr. Muth onto which they will apply some Rust Bond 60 and place it in a moist room for testing. Jim Chidsey told me that it would take at least 30 days before they could make any meaningfull evaluation of this coating as compared to the white metal blast and three mils of inorganic zinc which the specifications originally called for.

Jim suggested as an alternate to the vinyl primer that the Contractors try to heat the splice plates by the application of welding machine electrodes. He said that if the steel temperature was raised to between 60 and 70 degrees that this would supply ample heat to cure out the epoxy and that no further heat would have to be added to the steel or paint. It is also possible to heat the plates by using portable space heaters although this would be quite difficult on the outsides of the girders.

There is another solution to this problem which the Contractors have been avoiding and that is to sandblast the cadmium plating off of the bolts and apply inorganic zinc as on the rest of the structural steel. It might be pointed out that this entire problem of epoxy coating on the cad plated bolts is one of the Contractor's choosing and not one that is in anyway called for by the specifications.

I talked to Mr. Shotwell and Mr. Howard about the idea of heating the splice plates and asked them to discuss this with the Contractors. John Howard reported back that John Krieger had tried heating the splice plates with the welding electrode in the shop and found that since the plates are rather large, that while they were heating one part of the plate, the other part was cooling and they could never get the entire plate at the proper temperature. What it amounts to is they don't believe that heating the plates is

a feasible method of taking care of the epoxy problem.

It appears as though the only solutions to the epoxy coating problem is either sandblasting the cad plating off the bolts or using the vinyl primer which will apparently take the laboratory 30 days to evaluate.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb

cc: W. E. Johnson
Ivan Merchant
John Jenkins
John Howard
Robert Shotwell

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DEC 1

Form FHWA-121 (12-6...

UNITED STATES GOVERNMENT

FOR FI...

Memorandum

T 405-8(23)304
7311

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon
Attention: Mr. A. E. Johnson

FROM : for R. E. Simpson, Division Engineer
Salem, Oregon

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Box 300
Salem OR 97308

DATE: November 9, 1971

In reply refer to: 08-35.6

SUBJECT: Protective Coatings for Steel

Attached are two articles on the protective coating of steel using zinc and other materials. The article by Montle from the Carboline Company indicates that the problems dncountered in the Fremont complex are not uncommon to inorganic zinc. The article by Dahlke gives some interesting guidelines on paint system selection. The comments on zinc and epoxy coatings might have some significance for future jobs. I am forwarding three copies for possible distribution to your specification and laboratory people.

Attachments

NOTED
JOM EDWARDS

RECEIVED
NOV 1 1971
OFFICE OF
STATE HIGHWAY ENGINEER

AEJ

11-15-71
cys to
I. D. Barchet
John Jentoft-Nilsen
Ed Nevatie
Ed Hardt
Pete Bateman

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GPO 910.222

File:
Protective coatings
(for steel).

Copy sent Schell Oct. 22-71 FMH-14

Unexplained Coatings Phenomena with Some Partially Baked Answers

J. F. MONTLE, *Carboline Co., St. Louis, Mo.*

IN COATINGS formulation and evaluation, certain results have occurred which are reproducible but unexplainable. Some answers have been suggested to explain the cause of these phenomena, but most have not been rigorously proven.

Undercutting

Undercutting is the primary cause of failure of maintenance coatings. Evaluating the rate of undercutting is normally quite straightforward. For example, when a coated test panel is exposed to a sulfuric acid environment, the effects of undercutting are quite visible as the voluminous rust product pries up the film (Figure 1). The corrosion products of steel exposed to sulfuric acid occupy a much greater volume than the original base metal, and undercutting is quite rapid.

In some test exposures, predominantly where salts are involved, there are difficulties in evaluating the rate of undercutting because it is not easily determined by visual means (Figure 2). The rate of undercutting as measured by visual rust formation in these environments is considerably less than the rate of undercutting as measured by carefully checking adhesion in the vicinity of the scribe. Most organic coating systems when exposed to salt fog cabinets will exhibit a steadily increasing loss of adhesion from the scribe if checked with a knife very shortly after removal from the test cabinet. If the panels are allowed to dry and the degree of undercutting then checked with a knife, the coating can usually be removed, but with difficulty, as far back as it could while the coating was fresh from the cabinet. After the distance back from the scribe in which the coating could be readily removed while wet has been reached, the adhesion becomes excellent, and the coating cannot be removed without splitting the primer.

Note: This article is a highly condensed version of the original paper. For information on obtaining copies of the complete paper, interested readers should contact the editor of this journal, NACE, 2400 West Loop South, Houston, Texas 77027.

The distance from the scribe where the coating can be removed easily while wet will increase steadily with time. The surface of the panel beneath the coating in this area shows no visible signs of corrosion.

Part of the same phenomenon is the row of blisters frequently observed away from the scribe. This is also more common to salt exposures than any other environment, and more frequently, salt water immersion. A row of blisters appears at a uniform distance from the scribe but not necessarily touching the scribe and thus indicates the maximum distance back from the scribe that the coating can be readily removed with a knife. If the panels are then immersed in salt water for a longer period of time, frequently a second and third row of blisters will appear progressively further away from the scribe.

Although the reason for this difference in adhesion is not understood, it is of enough significance that the two methods of rating undercutting, visual and knife, be used in all grading of test panels in salt exposures.

Anything that weakens the primer or allows it to be subjected to chemical attack obviously will lead to a greater rate of undercutting. The better the surface preparation, the lesser the rate of undercutting. Furthermore, anything which puts a greater stress on the bond will increase the rate of undercutting. Therefore, heavy film thickness, rigid materials frequently undercut more rapidly than thinner film, more flexible materials. It seems logical, then, that additional coats of the same material would cause more rapid undercutting than lesser thickness or number of coats. In many cases, however, this is not true with respect to undercutting. For example, three coats of epoxy coal tar at 8 mils per coat (24 mils total thickness) will undercut far less than two coats of the same system at 16 mils.

One possible explanation is that when corrosion occurs by electrical galvanic action, permeation of ions through the film completes the circuit and causes subfilm corrosion. Therefore, the additional film thickness will reduce the rate of undercutting because there will be a reduced amount of

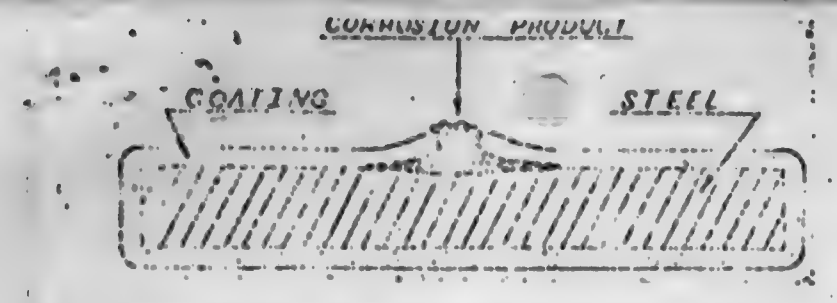

Figure 1 — Undercutting in a sulfuric acid environment.

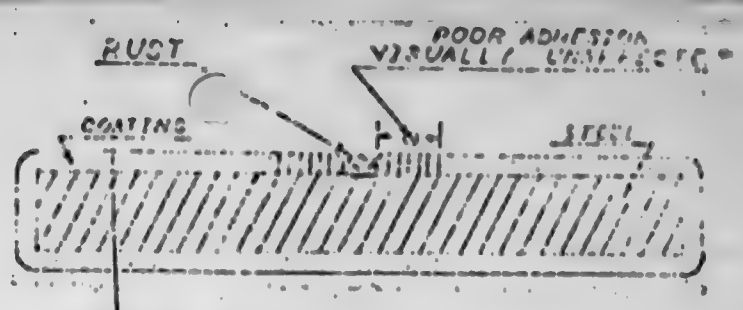

Figure 2 — Undercutting in a salt fog atmosphere.

penetration through the film. This explanation would also explain the row of blisters a finite distance back from the scribe. These blisters would be caused by penetration through the film aggravated by the corrosion at the bare scribe, and this would complete the electrical circuit. While this brief and incomplete explanation might be the answer to the blisters along the scribe and the reduced undercutting with increased film thickness, it does not explain why there is a significant loss of adhesion from the scribe where there is no visible corrosion. It does not explain why the adhesion is poor when the panels are freshly removed from the test exposure and why adhesion is quite good after allowed to dry overnight.

Cold Wall Effect

The greatly increased blistering of linings when subjected to thermal gradient is called the "cold wall" effect. One of the theories that has been presented to explain this effect is that the thermal gradient through the coating creates osmotic pressure and accelerates permeation through the film. In this respect, this failure is thought to be very similar to that initiated by a concentration cell or a surface contamination.

According to another theory, gases from the liquid media diffuse through the coating, condense upon reaching the cold wall, and the larger molecule formed by the liquid water cannot diffuse back to the film as readily. The pressure formed creates the blisters.

The author's work has shown that the effect of thermal gradient is most pronounced when dealing with purer solutions; i.e., penetration of pure water is accelerated more by a thermal gradient than salt water solutions. The rate of acceleration by thermal gradient is relatively independent of coating type. While the author's work has not indicated a better theory to explain this phenomenon, it has verified that the blistering which occurs is due to the degree of thermal difference.

Bubbling of Topcoats

One of the primary reasons for the success of inorganic zinc primers is that the film is open and porous, permitting free passage of the electrolyte to the base surface and providing a high degree of cathodic protection. However, this porous surface can cause some difficulty when the inorganic zinc primers are topcoated. Bubbling of the topcoat frequently occurs and is normally manifest shortly after the coating is applied. The bubbles usually grow rapidly and frequently burst, leaving a crater or void in the coating. The amount of bubbling varies from essentially none to several bubbles per sq inch. The bubbling occurs regardless of the method of application and with all generic types of coatings. Bubbling is worse, however, with coatings which dry rapidly on the surface.

The primary cause of bubbling is air and vapor displacement. When topcoats are applied over an inorganic zinc, the solvents in the vehicle will be absorbed by the porous primer. When this occurs, the air in the voids and porosities in the primer must be displaced. Also, as the liquid volatile solvents begin to evaporate from the porosities in the primer, the volume that they occupy is many times greater. This large volume of gas then creates pressure which forces its way up through the topcoat, forming a blister. If the coating is a film forming material which rapidly forms a skin on the surface, the bubbling will be aggravated. If the coating is one that stays wet for a long period of time, which permits the passage of the volatile solvent and air through the film without forming a blister, the amount of bubbling will be reduced.

With properly formulated topcoats, bubbling is not a great difficulty, but it is interesting to the formulator that the differences between materials which exhibit little or no bubbling and which bubble badly is very slight. Also, bubbling with some coatings will vary tremendously from day to day or from area to area for no known reason. Sometimes, changing to a faster thinner eliminates the problem, but sometimes, a change to a slower solvent works. Neither is there any explanation as to why random bubbling occurs. It appears that the solvents and air that are displaced migrate through the film to some particular void in the inorganic zinc primer, and all of the volatile material is channeled up through this spot, causing a bubble.

Nobody has a complete understanding of why bubbling of topcoats occurs and exactly how to completely eliminate topcoat bubbling. When pinholes do occur in the film of a topcoat, it is primarily an aesthetic problem. Pinholes and voids in the topcoat in normal service are rapidly filled with zinc salt corrosion products and have no noticeable effect on the life of the coating system.

Passivation of the Steel Surface

Inorganic zinc primers protect the steel by the difference in potential between the zinc metal and the steel surface. The potential difference generated is more than sufficient to entirely prevent corrosion of steel in an aqueous environment.

Tests run by the author have shown that protection of the steel can be obtained with no difference in voltage. This has been observed by others and has indicated that the method of protection by inorganic zinc is not due solely to cathodic or galvanic protection. The theory is that cathodic protection lasts only a short time and that the rest of the protection is due to formation of basic zinc compounds which produce a protective film on the steel and fill the pores of the zinc. It is this zinc silicate iron complex which protects the steel from corrosion. The author feels that this is only a partial explanation. It is known that zinc salts rapidly form on the surface of the zinc and are essential in order to keep the zinc from sacrificing too freely. If it were

not for these zinc salts, the service life of inorganic zinc primers would be quite short. There is a certain amount of permeation through this by zinc salt or zinc compounds that are formed, and there could be sufficient transfer of electrons to in some way passivate the surface of the steel to prevent it from going into solution.

Topcoating Epoxy Coal Tar

Epoxy coal tar coatings cannot be allowed to be exposed to sunlight for any period of time without encountering difficulty in applying topcoats. The problem is due to ultraviolet light. Subjecting epoxy coal tar panels to heat aging or other exposures for various periods of time has always resulted in a surface that can be topcoated with no difficulty. However, exposure to sunlight for even short periods of time will result in a surface to which topcoats cannot be applied without loss of adhesion. Upon exposure to sunlight, some type of chalk layer forms on the epoxy coal tar surface. To successfully apply a topcoat, this weak boundary layer must be removed by mechanical abrasion or by chemical treatment.

The tightly adherent chalk layer formed is not apparent when wiped with a thumb, it is not removed by scrubbing with water and soap or most common solvents. The question is, why does this chalk layer form so rapidly? Is it due to oxidation of the coal tar? It is difficult to remove, yet topcoats split this surface layer readily. Scrubbing with ketone and aromatic solvents will not remove this layer, but when coating systems which contain only these solvents are applied, they can readily be peeled off taking the chalk layer with them.

It has been proposed that the cause is some reaction with a surface catalyst blush. However, the sensitivity to weathering is the same after the first chalk layer has been removed. After removal of the chalk layer, the epoxy coal tar coating must be topcoated promptly. If it is allowed to weather another two or three days, once again the chalk layer will form. The cause remains unexplained.

Topcoat Blistering

Unlike the phenomena discussed previously, one particular type of blistering is not reproducible. It sometimes occurs when inorganic zinc primers are topcoated overall on one side of the panel but only partially on the front side. When the panel is immersed in fresh or salt water, blisters sometimes appear on the back side of the panel directly opposite the spot on the front where there is no topcoat. The delineation can be quite sharp. For example, if there is a 1-inch bare strip on the front side of the panel, a 1-inch strip of blisters down the back of the panel is observed. The only answer that has been proposed is that the hydrogen gas generated by the reaction of the zinc dust with the corrosive media diffuses through the steel and forms blisters on the opposite side of the panel. This, however, seems rather unlikely. Why would the hydrogen diffuse through the steel panel rather than only through the inorganic zinc coating? Also, this phenomenon is puzzling in that it does not occur all of the time even with the same primer and the same topcoat.

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JOHN F. MONTLE research director at Carboline Co., St. Louis, Mo., supervises laboratory research and development activities. He received a BS in chemical engineering from Washington University. An NACE member for 10 years and chairman of Unit Committee T-6B, Montle is also a member of the Society for Paint Technology.

An Illustrated Pocket-Size Handbook

Practical Corrosion Control of Gas Utility Piping

JOHN E. WRIGHT
Gas Service Company
Kansas City, Mo.

180 detailed illustrations showing how to go about controlling corrosion on gas utility piping are the main features of this book. Most situations normally encountered in trouble shooting and repairing leaking mains and service lines, detecting failed anodes, broken wiring, testing insulators, preventing or correcting shorts, and many others are covered with detailed, easy-to-understand drawings. They tell you what to do and what not to do.

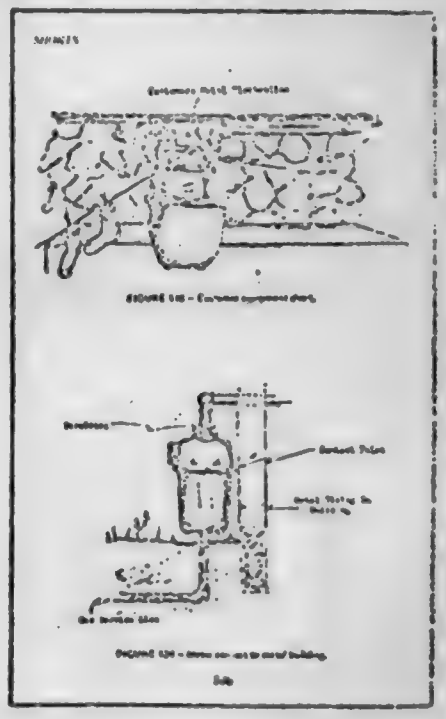
Text and pictures give a variety of construction and repair details designed to inform the field crew foreman or supervisor about the proper ways to limit corrosion.

The information came from the practical experience of Mr. Wright and his co-workers. A manual essentially the same as this book is in use by his company in reducing corrosion damage.

A page from the book is shown in miniature at right.

CONTENTS INCLUDE:

- Causes of corrosion
- Examples of corrosion
- Basic corrosion cell
- Soil resistance measurements
- Insulators
- Shorts
- Measuring volts by meter
- Tapes
- Cost of coating and wrapping pipe
- Gas meter insulators
- Insulated unions
- Flange insulators
- Plastic pipe insulators
- Types of bonds
- Safety
- Handling anodes
- Testing anodes
- Short circuits
- Checkpoints
- Leaks of steel mains
- Ductile iron mains
- Service repairs



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Paint Performance

Zinc Rich Primers: Choice and Selection

C. A. DAHLKE, JR., *Ross Engineering Co., Birmingham, Ala.*

IT IS generally agreed that protection of steel with coatings is the most effective and economical approach to corrosion control. The most important part of a protective coating is the part in direct contact with the steel, the primer.

Zinc rich primers owe their corrosion resistant properties to the galvanic or sacrificial protection of the zinc dust particles in the primers. Zinc particles are in direct contact with each other and offer a direct electrical connection from the surface of the primer to the steel substrate. Since iron and steel are below zinc in the galvanic series, zinc will corrode in preference to them when in electrical contact in a corrosive environment.

A zinc rich primer is not like the zinc filled primers commonly used for priming galvanized steel. A zinc rich primer has an extremely high percentage of metallic zinc pigments, whereas the galvanized steel primer has a lower metallic zinc content and is mixed with zinc oxide. To qualify for SSPC inorganic zinc rich nomenclature, the metallic zinc dust content of a primer must be at least 75% by weight of the total nonvolatile content. An organic zinc rich primer must contain not less than 85% metallic zinc dust by weight of the total nonvolatile contents.

Zinc rich primers do not lend themselves to accelerated testing. The best method of evaluation is to test them under the conditions of use. Some long term testing in marine atmospheres has indicated that inorganic zinc rich primers have a longer life in those environments. However, similar tests run in areas remote from the sea have shown little or no difference in the life span. Submerged tests in fresh water have indicated a longer life with some organics than with some inorganics.

One of the reasons for the shorter life of some of the organics in early tests was that the zinc content was comparatively low, and the organic resins had a tendency to completely encapsulate the zinc particles, insulating them from the steel. When the particles in direct contact with the steel are used up, the galvanic protection is lost, and corrosion takes over.

Newer organic zinc rich primers with over 85% metallic zinc show good electrical contact with each other. The slight partial insulating effect from electrolytes on the surface of these zinc particles slows down the sacrificial action of the zinc, which can be very beneficial and can lengthen the life of a zinc rich coating and its galvanic protection under conditions conducive to formation of soluble zinc salts. In these cases, any zinc rich primer requires a top coat to protect the zinc.

Inorganic zinc rich primers, completely resistant to most solvents, are ideal without top coats for use as tank linings, where solvents are involved. Inorganic primers normally have better weather resistance, abrasion resistance, and temperature resistance than organic primers.

One of the major advantages of organic zinc rich primer is its ability to accept top coats more rapidly than inorganic zincs. It is impractical to topcoat inorganic zinc rich primed steel in the fabricator's shop because of the cure time required. Most organic zinc rich primers can be topcoated within a few hours and some, such as the phenoxy zinc rich and the vinyl urethane zinc rich primers, in a matter of minutes. These have definite advantages in high-volume fabrication shops and in-plant maintenance painting. Another advantage of the organic zinc rich primers is the ability to adhere better to a "less-than-perfectly" prepared surface, eliminating the requirement of a tie coat between the primer and top coat.

Selection of a Zinc Rich Primer

One of the most important considerations in primer selection is the complete coating system. If no top coat will be used, an inorganic zinc may be preferred. If a solvent based top coat is to be applied, an organic zinc rich primer

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Note: This is a highly condensed version of the original paper. For information on obtaining copies of the complete paper, interested readers should contact the editor of this journal, NACE, 2400 West

Another important consideration is when the top coat will be applied. If the primer is to be topcoated immediately, cure times become a major item.

Environmental conditions at the time and place of application are an important consideration. Water is necessary to complete the curing reaction of inorganic zinc rich primers. At temperatures below 7 C (45 F) and/or humidities below 50%, the curing rate of most inorganic primers is seriously retarded. Low humidity generally favors application of the organic types, and temperature below 7 C (45 F) begins to limit selection to a product such as the organic zinc rich phenoxy primer.

The environment in which the coating system will be located will have an effect on primer selection, even if two or three top coats are to be used. Some environments would be better protected with some type of primer other than zinc rich. For example, a highly caustic area subjected to splash or spillage of caustic material and mechanical damage would be far better off with a rust inhibiting epoxy primer. If mechanical damage in this area should occur to the zinc primer, the primer would be attacked and actually undercut the top coating.

Consideration should also be given to the applicator. Special techniques and training are required in application of zinc rich primers. This training is usually available from the supplier.

The manufacturer's experience with the zinc rich coating specified must be weighed. His ability to offer service, especially to the applicator, also is important. The manufacturer should be willing to guarantee the protective ability of the zinc rich primer and offer the service to back it up.

Economic Considerations

Zinc rich primers are relatively expensive when comparing costs, however, price per gallon can be deceptive. A low cost paint would probably have no more than 35% solids by volume. Either it does not go very far, or it is too thin to offer ample protection with one coat. Furthermore, an inexpensive primer often is applied over steel with little or no surface preparation. When the mill scale pops off, so does the primer. Properly top coated with two coats of low cost alkyd paints, this system will have a life expectancy of 3 to 5 years in a noncorrosive atmosphere. In a pulp and paper mill, the life expectancy of the coating, about 4 to 5 dry mils thick, is closer to 1 year, with failure starting in 6 months or less in severe areas.

With normal maintenance, the zinc rich primer system with two coats of epoxy offers about 10 dry mils thickness. It can be expected to be in good shape after 5 years. The primer should offer galvanic protection for 10 years and in some cases, up to 20 years.

Total cost/sq ft of the older system, based on *1968* prices, is about $0.39/sq ft. Based on *1971* prices, total cost of the zinc rich system is approximately $0.44/sq ft.

Specifications for protective coatings must be clearly written with no room for doubt, especially where zinc rich primers and "exotic" top coats are to be applied. The exact generic type of primer, the minimum surface preparation, and the minimum dry mill thickness should be specified. Minimum standards should be established and adequate inspection maintained.

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CLARENCE A. DAHLKE, JR. is a staff engineer with the Rust Engineering Co., Birmingham, Ala. A graduate of the Indiana Institute of Technology, Dahlke has a BS in chemical engineering. He is a member of the NACE and TAPPI.

CORROSION//72

Form E-288 (Rev. 11-70)

I-405-8(23)304
7311

STATE COPY G-1P

OREGON STATE HIGHWAY DIVISION

Order for Extra Work

TO BE PERFORMED ON FORCE ACCOUNT BASIS

APPROVED EFFECTIVE DATE 4-12-71
Contingent upon modification of project agreement if additional funds are required
BY [signature]
TITLE Dist. Engineer
DATE 11-30-71
FEDERAL HIGHWAY ADMINISTRATION

Project Name East Fremont Interchange, Unit B — Date 6th November 19 71
Highway Stadium Freeway — Contract No. 7311
County Multnomah — Prefix 626-1018
Contractor Drake-Willamette, Joint Venturers — F. A. Project No. I-405-8(23)304
Address 1201 North Loring St., Portland, Oregon 97227 — Order No. 11

The following work is hereby classified as "Extra Work", to be performed and paid for in accordance with the terms of contract.

Description of work to be done:

Repair damage to inorganic zinc primer on steel girders which has been caused by rusting of the top girder flange. This includes removal of loose rust stain from the primed surface and cleaning and repriming of the flange edge where paint failure has been caused by rusting of the top flange.

Location by station numbers:

Throughout project.

To Comptr 12-1-71

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OFFICE OF
STATE HIGHWAY ENGINEER

Estimate of quantities and cost:

Labor	$2,500.00
Equipment	1,000.00
Materials	500.00
Total	$4,000.00

NOTED
TOM EDWARDS

Explanation: (Explain here the conditions which cause this work to be classed as "extra work")

The specifications do not allow the steel girder top flange to be painted. The resulting rusting of this flange which caused the damage to be repaired under this order was beyond the control of the contractor. Work has been started.

INSTRUCTIONS: A single order should not cover more than one class of work or more than one extra work job.

Submit five copies of the order to Salem. After final approval of the order, the Salem office will send one copy to the contractor, one to the Regional Engineer and one to the Resident Engineer.

Project authorization	$ 9,458,459.11
Present estimate of project cost, including $4,000.00 for work under this order	$ 9,502,854.65
Expected ~~under-run~~ over-run amount	$ 44,395.54
Expected ~~under-run~~ over-run per cent	0.469

Space to right of this line is for use of Salem Office

Submitted by: [signature] Resident Engineer

Approval Recommended: [signature] Regional Engineer

Approval Recommended: [signature] For: Construction Engineer or Bridge Engineer

Approved: [signature] Construction Engineer.

FORM E-30 (REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 27, 1971

NOTED
A. E. JOHNSON

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Use of Carbozinc 11

Discussed with Mr. A. E. Johnson on October 26, the use of Carbozinc 11 vs. Enjay's Rust Ban 193 for zinc Primer repair work on the subject projects. The facts of the question are as follows:

1. Enjay's Rust Ban 193 has been officially approved for use on both projects.
2. The painting subcontractors have requested (orally on the west side and in writing on the east side) that they be allowed to substitute Carbozinc 11 for Rust Ban 193. At the moment these requests have been granted and the painters have been using Carbozinc 11 for some time.
3. During painting meetings with Camron, we have been told that their painting consultant, CanTest, has said that Rust Ban 193 is preferable to Carbozinc 11 for our use of buildup of thin areas.
4. We have written to both prime contractors asking them to clarify the situation and if they want to use Carbozinc 11 to make a formal written request to do so.
5. Our laboratory (Jim Chidsey) told me that either paint was suitable for the use intended, although he felt that Rust Ban 193 would have a slight edge due to its superior adhesion quality.
6. I had previously been told by Mr. Johnson that our paint consultant, Hal Harlan, had no opinion regarding the relative merits of the two paints.
7. As mentioned above, we have been using Carbozinc 11 for some time and have found no particular problems with it.

Mr. Johnson told me that through a discussion with H. A. Anderson, he had been informed that they have a letter from Camron stating that if the switch is made away from Enjay's paint, then Camron feels that they are clear of any responsibility with regard to the paint problem. For this reason, the Contractors, at least Anderson-Hannan, will not write and make a formal request to use Carbozinc 11.

Mr. Johnson told me that in view of the facts listed above that he can see no reason to go back to Rust Ban 193 and he told me to proceed with the use of Carbozinc 11 without any written request from the Contractors.

R. L. Schroeder
Metropolitan Engineer

ELH:mb
cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
John Jenkins

RECEIVED
OCT 28 1971
OFFICE OF
STATE HIGHWAY ENGINEER

Edward L. Hardt
Assistant Metropolitan Engineer

EP 52475-734

FORM E-30 (REV. 10-69).

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 27, 1971

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
Zinc Paint on "SW" Unit 2

My letter to Tom Edwards dated September 1, 1971 requested clarification of his letters to the East and West Approach Contractors which listed beams which were unsatisfactory on account of zinc film thickness. My letter was answered by a phone call from A. E. Johnson to the effect that only beams on the "Edwards list" were to have additional zinc buildup. If beams were not listed, they were to have rusty areas repaired and then painted with vinyl, regardless of the zinc thickness. These instructions were documented in my September 10, memo.

During the above-mentioned phone call, I asked Mr. Johnson about zinc repairs to "SW" Unit 2 girders. These are not on the "Edwards list" because at the time the paint thickness measurements were taken, they were not accessible, and the report from which this list was made carried that notation. I pointed out to Mr. Johnson that the units on each side of SW-2 needed repair and were on the list and we expected that SW-2 would be in the same condition. He told me that if these girders were not on the list then the only repair work done would be on rusty areas and the zinc would be touchcoated, regardless of thickness.

The purpose of this memo is to document the fact, for John Howard's benefit, that he raised the question of repair work on SW Unit 2 and was given the instructions outlined above.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

EIH:nb

cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell

SP*52479-724

RECEIVED
OCT 29 1971
FOR FILING

I-405-8(23)304
7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 26, 1971

To: Memo To The Files

SUBJECT: East Fremont Interchange
Contract No. 7310 & 7311
Payment for Vinyl Paint Change

A meeting was held in Robert Shotwell's office on October 22, to discuss payment for the change in vinyl paint from Enjay to Carboline. Attending this meeting were the following:

Jack Gray	Donald M. Drake Company
Web Smith	" " " "
Smokey Grant	" " " "
Ron Owens	Klass Bros.
A. E. Johnson	OSHD
Ivan Merchant	"
Ed Hardt	"
Robert Shotwell	"
Chuck Lobaugh	"

The point of the meeting was to discuss whether or not the Contractor was entitled to a 15 percent markup on the cost difference between the Carboline and the Enjay vinyl paint. At the time the switch in paint manufacturers was discussed, Mr. Johnson offered to have the State pay the "difference in cost" between the two kinds of paint. Mr. Grant and company feel that this cost difference should included a markup for overhead and profit similar to a work order or price agreement type change. Mr. Johnson said that he felt that no markup was called for because he felt the offer he made was of mutual benefit to both parties to solve the vinyl paint problem, particularly since the Enjay paint that was being used up until that time did not meet the State's specifications. Mr. Grant said that he felt the markup should be allowed as a matter of principle as it would be on any change order to a contractor.

After considerable discussion regarding the merits of both positions, it was decided that a Price Agreement would be written for the net cost difference of the two kinds of paint based on the difference between invoices with no markup. The Price Agreement would carry a statement to the effect that by signing it, the Contractor was not waiving his right to handle the payment of the markup as a claim to be presented to the Highway Division if so desired at a later date. It was also mentioned that the actual payment for the additional cost of paint would

SP 932479-734

be based on a field count of the amount of paint actually used.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

EIH:pb

cc: A. E. Johnson
Ivan Merchant
Robert Shotwell
John Howard
Jack Gray, Drake-Willamette

RECEIVED
OCT 27 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 14 1971

FORM E-10 (REV. 10-62)

FOR FILING

E-4CT 8(23)304
7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
October 8, 1971

NOTED
A. E. JOHNSON

To: Memo To The Files

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Zinc Paint Repair Work

A meeting was held on October 7, at Mr. Shotwell's office to discuss the current practices with regard to inorganic zinc repair work on the East Fremont project. Present were the following:

Dick Davies	Canron
Don Fields	"
Jack Gray	Drake-Willamette
Leonard Grover	Enjay Chemical Company
Al Rear	OSHD
Ed Hardt	"
Bob Shotwell	"
John Howard	"
Chuck Lobaugh	"
George Bonnett	"

This meeting was requested by Mr. Davies to talk about the current practices for repair of inorganic zinc, particularly on the insides of the girders. This work has been completed for some time on the West project and will be completed on the East project in about another week.

Mr. Davies feels, and he says he has recommendations from CanTest and Enjay Chemical Company confirming this, that the amount of power wire brushing being performed for cleanup of rusty areas is excessive to the point where the zinc is merely being polished. He feels this can be detrimental to the adherence of the inorganic zinc, presently Carbozinc 11, which is being applied to these rusty areas. He makes a distinction in the degree of rusting, referring to what he calls "pinhole rusting" as less severe than rusting of an entire area. He feels that pinhole rusting can be cleaned up with a hand wire brush. He also feels that in the case of a rusty splice plate containing cadmium plated bolts that the cleaning method should be hand wire brushing of the rusty areas, thus preserving the cadmium plating rather than sand blasting the plate and bolts as is generally being done on the project. This latter procedure has been used since it is evident that it is the least expensive way to clean up the rusty splice plate problem.

GPO 924 70-736

Mr. Davies was told by the writer that our repair procedure is as follows:

1. "Loose" rust staining is removed by whatever method is most economical.

2. Rusty areas are marked by the State's inspector and cleaned by power wire brushing until the rust is no longer evident.

It was pointed out to Mr. Davies that the power wire cleaning criterea was established by Mr. Lowery of Canron on May 4, during a demonstration of cleaning procedures on the West Fremont Interchange. This repair procedure was approved by the Highway Division as documented in a memo written by Mr. A. E. Johnson dated May 5, 1971. At this time, no distinction was made as to the degree of rusting. With respect to cleaning of rusty splice plates, discussion by the group convinced Mr. Davies that the present procedure was the most practical and least expensive method of taking care of the problem.

Mr. Davies was told by the writer that if he would submit his proposed cleaning criterea backed up by recommendations from CanTest and Enjay that the State would consider them. It appears that the basic problem involved in Mr. Davies proposal is finding a practical way to distinguish between the various degrees of rusting and consequently degrees of cleaning necessary.

Mr. Davies brought up the fact that the inorganic zinc paint presently being used for repair work is Carbozinc 11 which does not conform to the recommendation of Gordon Smith of CanTest who feels that Enjay's Rust Ban 193 is the preferable paint to use due to its superior adhesion characteristics. This presents a very confusing situation, since on the one hand the painting subcontractors on both projects have requested the use of Carbozinc 11 while on the other hand the material supplier for the projects, Canron, tell us that this paint is not the best for the purpose intended. By copy of this memo, I am asking both prime contractors, Anderson-Hannan and Drake-Willamette, to come forth with a written request for the use of Carbozinc 11 if they feel that it is the best inorganic zinc available for this repair work.

R. L. Schroeder
Metropolitan Engineer

By
Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson
Ivan Merchant
John Howard
R. E. Shotwell
Anderson-Hannan
Drake-Willamette
Canron

RECEIVED
OCT 11 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

NOTED
A. E. JOHNSON

Portland, Oregon 97213
September 24, 1971

I-405-8(33)20 /
7311

To: John Jenkins
Engineer of Materials
State Highway Building
Salem

SUBJECT: West Fremont Interchange
Contract No. 7214
East Fremont Interchange
Contract No.'s 7310 & 7311
Investigation of Inorganic
Zinc Paint

Rusting of structural steel primed with Enjay's Rust Ban 193 inorganic zinc on the subject projects has been the sbject of much controversy in the past several months. We are also concerned about girders which are not rusting but whose paint is thinner then that specified. The Contractors claim that the paint was applied properly in Vancouver, B. C. but has subsequently deteriorated. The State has laboratory tested (Harlan) this paint and has projected a possible maximum paint film loss of $\frac{1}{2}$ mil in a 6 month to 1 year period.

In order to explore this paint detericration question deeper, we feel it prudent to make winter exposure tests in Portland of Rust Ban 193. We would like to duplicate the seasonal exposure of the girders which have shown the worst rusting problem. We would propose to set out a number of samples of this paint and accurately measure the paint thickness to determine thickness loss as related to time and weather.

With regard to the paint application of these samples, it is our thought that original film thickness and rate of application of acid cure should both be variables. Consequently, we would propose to have samples with various film thickness, say 1, 2 and 3 mils, each with various amounts of acid cure applied. There may also be other variables which you would want to introduce into this program, such as directing a flow of water onto the sample to simulate the effect of the top flange of the girders sheding rain water on the girder webs. Hal Harlan may also have some ideas on this testing program.

We understand that your office has been directed to make field tests of Rust Ban 193. The above are our thoughts on such a study. We will be happy to work with you in any way in order to implement same.

R. L. Schroeder
Metropolitan Engineer
By: Edward L. Hardt
Edward L. Hardt
Assistant Metropolitan Engineer

RECEIVED
SEP 27 1971
OFFICE OF
STATE HIGHWAY ENGINEER

cc: A. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell

EP*52475-734

4623

FILED
SEP 23 1971
CLAY MYERS
SECRETARY OF STATE

SEP 23 2 50 PM '71
SECRETARY OF STATE

OREGON STATE
HIGHWAY DIVISION

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

September 22, 1971

Town Concrete Pipe, Inc.
P. O. Box 66064
Portland, Oregon 97266

NOTED ON CARD
9-28-71 KL

Attention: R. A. Town, Jr.

Gentlemen:

This is to acknowledge receipt of your letter of September 15, 1971, informing us that you have a claim for supplying materials in the amount of $7,531.70 against the bond obtained by C. J. Montag and Sons, as principal from Fireman's Fund American Fund Insurance Companies, as surety, on Contracts 7310, 7311 and 7312.

This appears to be in reference to the Willamette River Constructors three contracts, East Fremont Interchange, Stadium Freeway Projects in Multnomah County, Units A, B, and C.

The Travelers Indemnity Company and General Insurance Company of America furnished the performance bond on these contracts. We will advise them of the receipt of your claim, and we will also forward it to the Secretary of State for filing.

Please let us know when your claim has been paid.

Very truly yours,

ORIGINAL SIGNED
FLOYD QUERY

Floyd Query, Secretary
OREGON STATE HIGHWAY COMMISSION

cc The Travelers Indemnity Company
General Insurance Company of America
Willamette River Constructors

bc Secretary of State - Please acknowledge receipt of the attached
Commission claim on the enclosed copy of this letter.

NOTED
C. W. HEAD

RECEIVED
SEP 24 1971
OREGON
STATE HIGHWAY COMMISSION

Form E-123

TOWN CONCRETE PIPE, INC.
P.O. BOX 66034 PORTLAND, OREGON 97266
TELEPHONE: 777-3301

PLANT LOCATIONS: 6803 S.E. JOHNSON CREEK BLVD.
755 N.E. COLUMBIA BLVD.

MEMBER: OREGON CONCRETE PIPE ASSOCIATION
AMERICAN CONCRETE PIPE ASSOCIATION

September 16, 1971

Oregon State Highway Department
State Highway Building
Salem, Oregon

Notice is hereby given that Town Concrete Pipe, Inc. has a claim for supplying the following materials; concrete sewer pipe, manhole materials, and fittings, in the sum of $7,581.70 against the bond obtained by C.J. Montag and Sons, as principal from Fireman's Fund American Fund Insurance Companies, as surety, for the work of Oregon State Highway, Stadium Freeway, East Approach to Fremont Bridge, Contracts: # 7310, # 7311, and # 7312 .

Town Concrete Pipe, Inc.

R.A. Town Jr.

R.A. Town Jr.
President

Registered Letter: Return Receipt Requested

CC Fireman's Fund
Attention: Ross Engle

RECEIVED
SEP 20 971
OREGON
STATE HIGHWAY COMMISSION

NOTED
C. W. HEAD

Form FHWA-121 (12-67)
UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

I-405-8(23)304
7311

TO : Mr. R. L. Porter, State Highway Engineer
Salem, Oregon

DATE: September 14, 1971

In reply refer to: 08-35.6

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Projects I-405-8(20)303 & I-405-8(22)304
West and East Fremont Interchanges

Mr. Johnson's August 27 letter satisfactorily answers the questions raised in the inspection reports sent you May 18.

I believe that the measures you propose to undertake to continue the painting are satisfactory. I concur in the change in paint color and feel it will benefit the overall appearance of the project.

You state that you would agree to a change in type of vinyl paint for the remaining work. We concur in the substitution of Carbolene for the Enjay product. I am not ready at this time, however, to agree to Federal participation in the increase in cost.

cc Merchant
Schroeder
9-21

NOTED
A. E. JOHNSON

NOTED
TOM EDWARDS

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

GPO 910.222

RECEIVED
SEP 14 1971
FOR FILING

I 405-8(22)304
7311

September 13, 1971

Drake-Willamette Joint Venturers
1201 N. Loring Street
Portland, Oregon 97227

Gentlemen:

Re: East Fremont Interchange
Contracts 7310 and 7311

My letter of August 16 listed beams which were unacceptable as to primer thickness.

The letter was intended to imply that the balance were acceptable and may be painted with vinyl subject, of course, to spot-painting of erection scratches, mars, or any obvious rust areas which would be repaired under normal practices.

The ring beams have not been accessible to measure. When they are, the same principles as used on the beams shall apply.

Very truly yours,

R. L. Porter
State Highway Engineer

By

Tom Edwards
Deputy State Highway Engineer

TE:ja

bc R. L. Porter
A. E. Johnson
Ivan Merchant
R. L. Schroeder
John Howard
Robert Shotwell
John Bond

RECEIVED
SEP 15 1971
FOR FILING

I-405-8(23)304
7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
September 10, 1971

To: Memo to the File.

SUBJECT: West Fremont Interchange
Contract 7214
East Fremont Interchange
Contract 7310, 7311
Zinc Paint on Outsides of Girders

Received telephone instructions this afternoon from A. E. Johnson regarding clarification of Tom Edwards' letter of August 16, 1971, to the contractors on outside girder zinc repair. These are:

1. All girder sections listed on the Edwards' letter of August 16, 1971, are to have additional zinc paint applied where coverage is below 2 mils.

2. All other structural members except for ring beams and columns are to be repaired with additional zinc if they are rusty; otherwise, they are to be coated with vinyl regardless of the zinc thickness.

3. Ring beams and columns are to be measured when accessible, and where zinc thickness is less than 2 mils., they are to have additional zinc added. If they are rusty, they are to be repaired regardless of the zinc thickness.

4. As mentioned in the Edwards' letter, "erection scars, skips, holidays and rust" are to be repaired whenever found.

Mr. Johnson said that these instructions had been given him by Mr. Edwards who was going to write to contractors clarifying the situation. Any questions regarding the above instructions should be referred to the writer.

RECEIVED
SEP 13 1971
OFFICE OF
STATE HIGHWAY ENGINEER

R. L. Schroeder
Metropolitan Engineer

by Edward L. Hardt
Edward L. Hardt
Assistant Metropolitan Engineer

ELH:cw
cc: A. E. Johnson
John Howard
Robert Shotwell

9-10-71: Discussed this @ 3:30 PM with John Howard, Bob Shotwell, Chuck Colbaugh, Geo Bennett, Frank Seiss, Orlen Wood, Earl Thorsen at John Howard's office. ELH.

6P*82475-734

RECEIVED
OCT 11 1971
FOR FILING

OREGON STATE HIGHWAY DIVISION

I-405-8(33)204
7311

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

September 1, 1971

Oregon State Highway Commission

Request for Extension of Time
No. 8
September 8, 1971 meeting

Gentlemen:

Prior to advertising for bids on the three units (A, B, and C) of the East Fremont Interchange project, the specifications were written anticipating the possibility of each unit being awarded to a different contractor and required certain work to be completed at various times in order to provide the least conflict between contractors' working forces and allow an orderly completion of the work. Receipt of bids resulted in award of all units to the same contractor, Willamette River Constructors (name subsequently changed to Drake-Willamette Joint Venturers), Contract No. 7312. Such award eliminated the need for completion dates designed to provide for coordination between contractors.

The contractor now requests an increase in the contract time on Unit C to allow simultaneous completion of all units as one project. Access to Units A and B is through Unit C, thus necessitating the use of Unit C as an access ramp by the contractor's forces until Units A and B are completed. Use of Unit C as a ramp somewhat complicates the early completion of that unit. Unit C by itself is not usable by the traveling public and must be combined with completed Units A and B to provide a useful facility. Early completion of Unit C presents no advantage to the State or traveling public. Final inspection and acceptance of these units will be more efficient if all units are finalized at one time rather than at two different times as now specified.

A second inspection of Unit C for possible damage incurred during the final stages of Units A and B will also be eliminated by common completion.

Completion of Unit C as specified requires restoration of the Minnesota Freeway to a capability of handling the normal traffic flow at the specified time of completion. In order to provide this capability within the originally specified time of 660 calendar days, the contractor agrees to move the existing barricade on both the northbound and southbound Minnesota Freeway out into the shoulder area sufficient to restore the original traffic lanes and allow normal traffic flow.

In view of the circumstances prevailing at the time of specifying an early completion date for Unit C and the subsequent effect of letting all units to a single contractor and since no advantage is gained by the State or the traveling public with an early completion of Unit C, I recommend the contractor be granted a 95-calendar day extension on Unit C (Contract 7312) without assessment of liquidated damages. This waives liquidated damages for the 95-day period.

This is a Federal-aid project and we have the concurrence of the Federal Highway Administration.

This matter will be on the agenda for your consideration at the September 3 meeting.

Very truly yours,

R. L. Porter
State Highway Engineer

cc Floyd Query
Tom Edwards
A. E. Johnson
Victor D. Wolfe
I. D. Merchant
F. D. Morgan
V. E. Skoog
L. H. Young
R. L. Schroeder
Robert Shotwell

CAG:dh fn

DONALD M. DRAKE COMPANY
1710 N.W. Pier... Street
Portland, Oregon 97209

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

May 17, 1971

Oregon State Highway Department
1101 N. Russell Street
Portland, Oregon 97227

Attn: Robert E. Shotwell, Resident Bridge Engineer

Re: East Fremont Interchange
O.S.H.D. Contract No. 7312

Dear Sirs:

With reference to section 8-8, "Increase in time for performance of Contract", of the Standard Specifications, we respectfully request that the time for completion on Contract No. 7312 (Unit "C") be extended to coincide with contract 7310 and 7311 (Units A and B).

In that Unit C is an integral part of the total three contracts, as far as availability to traffic is concerned, and that Unit "C" will be required for access to Units A and B during construction, thus creating a difficulty in completing some of the items until access ramps are removed, it is felt that a common completion date would definitely make for a more efficient cleanup and selling process.

An extension to a common date would also make final inspection more efficient, as all items could be finalized at one time rather than two inspections, as set up now.

Your earliest review and approval will be appreciated.

Very truly yours,

William A. Bugge
Project Manager

dj

RECEIVED
MAY 1 9 1971
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

RECEIVED
SEP 15 1971
FOR FILING

I-405-1(22)304
7311

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 1, 1971

SUBJECT: East & West Fremont
Contract No.'s 7214, 7310 & 7311
Zinc Paint Deterioration

To: Tom Edwards
Deputy State Highway Engr.
State Highway Building
Salem

Attached you will find a copy of a letter from Canron dated August 20, 1971 and a transmittal of this letter from Drake-Willamette dated August 27. Canron's letter requests clarification of your letter of August 16, which listed certain girders which had been determined to be "unsatisfactory" based on paint measurements. The West side Contractor, Anderson-Hannan, has received a similar letter from Canron.

Canron's letter mentions an "understanding" between them and yourself developed at a meeting held on July 21. Having no knowledge of this meeting, we are unable to comment on this "understanding" but with regard to the paint thickness readings which have been taken and upon which your letter was based, I believe the following points should be made:

(1) As of the date of the transmittal of the paint thickness readings to Mr. Johnson (August 9) four girders on the West and six on the East were not measured due to their inaccessibility at that time. Subsequently, those on the West side have been measured and are unsatisfactory. Those on the East have not been measured as of this writing due to access problems since they span over I-5.

(2) With the exception of some West-side readings which were taken off the Contractor's stripping scaffold, all of our readings were taken on the girder sides. The bottom flange has not been measured since it is practically impossible to reach without scaffolding. Since the girders were painted in the inverted position which allowed the curing acid to "pond" on the bottom, there is a question in our minds whether the girder side readings represent the condition of the bottom. This means that a girder with acceptable "side" readings might not have the same condition on the bottom.

(3) Essentially none of the ring beams and columns on either project have been measured due to their inaccessibility. Visually we see paint problems on the outside of these sections and they should not be automatically included as acceptable steel.

NOTED

SP 52479-734

(4) On the East side, we have girders with as few as two readings for paint thickness and these are located in a unit which has questionable paint (SW3, A-2, and B-2). If it is intended that these two readings per girder are to represent the paint condition of the entire girder for State's final acceptance of that paint, then we feel that more readings should be taken. We have found that this zinc paint has not been applied in a uniform enough coating that two readings for an entire girder can give a true representation of all the paint on the girder.

As mentioned above, we have no direct knowledge of Mr. Higgen's "understanding" with you; however, conversations with him have indicated that he would like to have an absolute acceptance now of all girders with satisfactory paint. In theory, there is some merit to this idea but from a practical point, it has a serious disadvantage. The paint thickness readings which you have been supplied were taken with the idea of making a cursory examination of all girders in order to zero in on the problem ones. Many girders have 10, 8, 6, 4 or only 2 readings. Proper inspection criterea would indicate that this would not be adequate information from which to base a final acceptance and these readings were not taken for that purpose.

If girders are accepted now on the basis of the readings which we have to date and if the paint subsequently rusts, the Contractors can argue that their contention that the paint is still deteriorating in Portland has been verified. If in fact the reason for this assumed subsequent rusting would be that the paint never was there and our minimal readings failed to pick this up, our position that the workmanship is faulty would be undermined. If the girder paint has to be accepted at this time, it would be our recommendation that this acceptance be based on a certain minimum number of readings per girder. Your thought of 15 readings per side (30 per girder) would be one approach to establishing a minimum.

Your clarification of this whole question of girder acceptance is solicited.

R. L. Schroeder
Metropolitan Engineer

By:

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: A. E. Johnson w/attach.
Ivan Merchant "
John Howard
Robert Shotwell

RECEIVED
SEP 3 1971
OFFICE OF

DONALD M. DRAKE COMPANY
2740 N.W. Flanders Street
Portland, Oregon 97208

WILLAMETTE-WESTERN CORPORATION
Foot of N. Portsmouth Avenue
Portland, Oregon 97203

DRAKE - WILLAMETTE JOINT VENTURERS

EAST FREMONT INTERCHANGE PROJECTS

1201 N. Loring Street
Portland, Oregon 97227

August 27, 1971

Oregon State Highway Department
1101 N. Russell Street
Portland, Oregon 97227

Attention: Robert E. Shotwell, Resident Engineer

Reference: East Fremont Interchange
OSHD Contract No. 7310 and 7311
Zinc Primer Deterioration

Gentlemen:

Enclosed are two (2) copies of Canron, Limited's letter of August 20, [illegible] Willamette, Joint Venturers regarding inorganic zinc primer paint deterioration..

Your attention is specifically called to the last paragraph wherein Canron requests confirmation regarding extent of their liability for [illegible] subsequent to Mr. Edwards' letter of August 16, 1971, wherein he listed certain girders "which have unsatisfactory mil thickness" (of zinc primer).

Please clarify the State's position regarding this request for determination of extent of Canron's responsibility.

Very truly yours,

John R. Gray
Project Manager

dj

Enclosures

METROPOLITAN ENGINEER
RECEIVED
AUG 31 1971
ME AME AME MOE MDE MTE

RECEIVED
AUG 30 1971
ROBERT E. SHOTWELL
RESIDENT BRIDGE ENGINEER

August 20, 1971
Our Reference: 4900/5000/4

Andersen Hannan
1626 N.W. 16th Avenue
Portland, Oregon

ATTENTION: MR. R. HANNAN

Dear Sirs:

RE: EAST AND WEST FREMONT
PRIMER PAINT DETERIORATION

This will acknowledge receipt of the letter from the State signed by Mr. Tom Edwards and dated 16th August 1971, setting out a list of beams determined to have unsatisfactory mil thickness.

In the letter, Mr. Edwards states that girders with 2.0 mils thickness are acceptable "subject to the repairing of erection scars, skips, holidays, and rust".

As we stated in the meeting with the State on 21st July 1971, there are many areas where there are 2 mils or more of paint existing and which are not rusting now. At the time the field painter comes to these areas between now and the end of next Spring, it may well be that a substantial portion show signs of rust. There is no argument that these areas require repair at the time they are to be vinyled. However, it is most desirable that future repair costs of such areas do not become subject of the present dispute, inasmuch as we could not be held responsible for same.

. . . 2

RECEIVED
AUG 23 1971
M.A. ANDERSEN CO.

CPY TO CS HD

CPY TO RMH
✓ ✓ HANNAN

CANADIAN FOUNDRY

This point was recognized by Mr. Tom Edwards in discussion subsequent to the 21st July meeting, and it is our understanding from him that based upon the State's evaluation of the exterior of the girders at this time, they would define those girders which would be acceptable now. Any subsequent repair work on these girders, other than repairs of obvious skips and holidays, would not be regarded as subject of the present dispute and we would not be involved in any costs of same. Limiting the area of dispute in this way makes good sense and is reasonable from the State's standpoint.

As you can see, a literal reading of the above mentioned 16th August letter could lead to a contradiction of the above understanding. We would be pleased if you would obtain confirmation that the understanding is still in effect.

Yours very truly,

CANRON LIMITED
WESTERN BRIDGE DIVISION

P. G. Higgins
Contracts Manager

PGH/kas

CC: R. Franzke
G. Smith - Can Test

RECEIVED
SEP 3 - 1971
FOR FILING

I-405-8(23)304

Memo To The Files

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon 97213
September 1, 1971

SUBJECT: West & East Fremont Interchange
Contract No.'s 7214, 7310 & 7311
Repair of Rust Ban 193

On August 31, met with Dave Muth, Carboline's salesman, John Howard, Bob Shotwell, George Bennett and Chuck Lobaugh to discuss cleaning treatment for rust-free but low-millage Rust Ban 193 zinc which is to receive a build-up of Carbozinc 11 zinc. Had already received Carboline's written recommendation for this cleaning which specified a pressure water wash-down; however, yesterday learned from Dean Mandrell of our Lab that he felt either power-wire brushing or light sandblast was necessary to ensure 100% adherance.

It developed that Mr. Muth feels that the optimum cleaning method would be sandblasting but since he is aware of the economic and environmental problems associated with blasting, he felt that pressure washing would do an adequate job. He feels the important thing is to get rid of any "loose" material on the surface of the Rust Ban 193. Loose is the key word and the problem boils down to the question of how to determine when the "loose" is gone.

Muth, Lobaugh and I looked at examples of girders that had and had not been previously washed and Mr. Muth opined that those that had been washed were adequately clean for acceptance of a coat of Carbozinc 11. We evolved the cleaning criterea that the inspector would rub the surface several strokes with a dry rag with about the effort used in polishing a car. If there was no visible sign of this rubbing, the surface would be judged suitable for Carbozinc 11. If rubbing marks were evident, more cleaning effort would be required of the Contractor, probably by increasing the water pressure or by manual scrubbing.

Mr. Muth expressed confidence that if this criterea was followed, there would be no problem with adherance between the Rust Ban 193 and Carbozinc 11.

RECEIVED
SEP 2 1971
OFFICE OF
STATE HIGHWAY ENGINEER

R. L. Schroeder
Metropolitan Engineer

By: Edward L. Hardt

Edward L. Hardt
Assistant Metropolitan Engineer

ELH:pb
cc: K. E. Johnson
Ivan Merchant
John Howard
Robert Shotwell
John Jenkins
David Muth - Please review this memo and advise if you have any corrections and/or additions. ELH

SP°52475-734

RECEIVED
SEP 3 - 1971

FORM E-30X—30M—7-68

SP*23811-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon
August 30, 1971

To: ~~MEMO~~ TO THE FILE

SUBJECT: West Fremont Interchange
Contract No. 7214

A meeting was held on ~~this day~~ Aug 27 to discuss painting procedures for the exterior girder surfaces. Those attending were:

Ralph Hannan———————— Andersen-Hannan
John Krieter ————————Industrial Painting & Sandblasting
Mr. E. L. Hardt ————————Oregon State Highway Dept.
J. D. Howard————————Oregon State Highway Dept.
George Bennett————————Oregon State Highway Dept.
Glen Wood————————Oregon State Highway Dept.
Chas. Lobaugh————————Oregon State Highway Dept.

Use of the Carboline materials was discussed first. Ed Hardt pointed out Enjay RB 193 and RB 191 were the only zinc coating formally approved for the project. Carbo Zinc 11 is an acceptable alternate, but the request for its use should come from the contractor. Carboline should furnish a letter giving a documented history that the material can be used in the manner proposed for this project. A similar procedure should be followed for the Carboline epoxy. Ralph Hannan and John Krieter saw no problem with this request and agreed to furnish the documentation. To avoid any delays it was agreed to proceed with the use of the Carboline material while this information was secured.

Cleaning and paint application were discussed next. Preparations required to make the zinc primer acceptable for the finish coat include removal of rust, rust stain, concrete stain and repriming all areas with less than 2 mils priner thickness. Segregation of the costs for these preparations is necessary since, with exception of the concrete stain responsibility for the items is yet to be determined. The top flange of the girders is the most extensive area where all items are involved. The possibility of making separate passes for the different items was discussed. Ralph Hannan said that as of this time his stripping crew would remove concrete stain with wire bruches on the remainder of the work. John Kreiter thought the most economical and simplest procedure would be to do all the cleaning in one operation. Glen Wood and the paint foreman world assess the work both before and after completion and would agree to a percentage breakdown for rust, rust stain, and concrete stain removal. All parties agreed to give this a try.

Cleaning methods were brought up. Wire brushing was considered satisfactory in all areas accessable but sandblasting might be needed in the corners. John Krieter stated that the two methods could not be used together efficiently. The method that will do the job and is most economical all hazards considered should be selected and used throughout the span or unit. It was agreed that the paint inspector and paint foreman would make this decision after looking over the work to be done. There was some discussion on Carboline's epoxy for the bolted connections, John Krieter was requested to secure from Carboline a recommended cleaning procedure.

There was further discussion regarding thin paint areas that are not rusted. It was agreed the paint inspector would have to mark or identify them in some manner. We indicated the thin areas would be based on our paint survey. More thickness readings might be needed. We are working on the problem and should have a plan for doing the work in the near future.

This completed the subjects covered. There was no discussion on the vinyl finish. Ralph Hannan said he would pass on to Canron the results of the meeting.

John D. Howard
Res. Br. Engr.

JDH:ads

cc: E. L. Hardt
A. E. Johnson

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SEP 1 1971

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AUG 30 1971
FOR FILING

I-205-1(32)304
7311

August 27, 1971

Mr. R. E. Simpson, Division Engineer
Federal Highway Administration
Post Office Box 300
Salem, OR 97303

Dear Sir:

Re: West Fremont Interchange
Contract No. 7214

East Fremont Interchange
Contract Nos. 7310 and 7311

Attached is a copy of a report by Can Test, Ltd. of Vancouver, British Columbia, concerning their investigation of inorganic zinc paint on the subject projects. The findings of Can Test indicate a possible loss of 0.6 mils during the period March through July 1971, which is the period Can Test investigated with test panels.

You have previously been given a copy of a report by our consultant, Harlan Associates, Inc. of San Francisco, California, which indicated that it was possible for the inorganic zinc to deteriorate up to 0.5 mils when exposed to the elements for a period of 6 to 12 months.

On the basis of the above reports, which we believe to be compatible, we have instructed our contractors to repair and repaint with inorganic zinc those areas on the exterior of the steel beams which now have less than 2 mils of paint. These instructions are based on the assumption that with the specified 3 mils applied at Vancouver, it is conceivable to have 2.4 to 2.5 mils at this time in Portland. We have therefore taken the attitude that we will accept from 2.0 to 2.5 mils and insist on cleaning and painting of those areas with less than 2 mils subject to repairing of erection scars, skips, holidays, and rusted areas. We verbally advised the contractors that in view of the reports by Harlan Associates and Can Test, Ltd., we would expect this repair to be done not at our expense. The contractors and steel supplier have protested this verbally. Attached are copies of letters to the contractors instructing them to repair beams which we have determined by measurement to be in need of additional paint.

Reference is made at this time to your inspection reports which were furnished us under date of May 18, 1971. Your letter asked for an explanation for deviations from specifications covered in your inspection reports.

During the early part of this year, it was discovered that some of the structural beams delivered from Vancouver, B.C. were shipped with rusted areas and a deficiency of paint in certain areas. At that time, we advised the contractors that it would be necessary to clean the rusted areas and repaint with inorganic zinc to specified thickness. Prior to this problem of rusty steel, we had permitted the contractors to repair damaged inorganic zinc in the field without sand blasting preparation of the damaged areas and permitted them to clean with wire brushing. This is technically not allowed by our painting specifications; however, this change was permitted because of the substitution of Rust Ban 193 for Rust Ban 191 since the application of Rust Ban 193 does not require the high profile of sand blasting for adherence to the steel.

Since many of the beams were erected, it was necessary that the corrections be made in the field on the beams in their final location and the contractors proceeded to utilize sand blasting for cleaning purposes. Two problems resulted: (1) adjacent sound paint was damaged; and (2) sand from the operation was a problem in falling on property underneath the structures. At this time a trial was made of cleaning with power brushing, with representatives of the contractors, the State, Canron, Can Test, and Enjay Chemical Company present. We were assured by both Can Test and Enjay that the power wire brushing for cleaning was satisfactory for the application of additional Rust Ban 193 on the interior of the beams. On this basis and in order to eliminate damage to adjacent private property, we approved the use of power wire brushing.

We were also assured by both Enjay and Can Test that the removal of rust staining by hand wire brushing was a satisfactory method of preparing the surface as a preliminary to washing with detergent and high pressure water in accordance with specifications. It is to be noted at this time that the rust staining occurs from the unpainted top of beams which are not required to be painted with inorganic zinc by our specifications.

When the repairs to the rusted zinc areas were started, we felt that vinyl could be applied over zinc that had cured for 24 hours. There was a limited time when in order to expedite

the placing of forms the cure time was between 40 and 48 hours. We then changed our instructions to allow at least 48 hours of cure time. The inorganic zinc has been and is being washed with a detergent prior to placing the vinyl top coat.

Your inspection reports indicate that the vinyl top coat should be placed in a smooth uniform coat substantially free of bubbles or pinholes. This has been our objective throughout our operations. After a consultation with your personnel, we were visited by Messrs. Ted Howatt and Frank Sears from your Washington, D. C. office. They indicated to us that they had conversed with members of the Corps of Engineers and others and received the information that it is practically impossible to obtain a surface completely free of pinholes and bubbling. The vinyl surfaces inspected by these two gentlemen were declared to be satisfactory to them.

Paint measurements have been taken of the inorganic zinc, both on the insides and outsides of the beams, which were a basis of our instructions to the contractors to make corrections. We have proceeded on the repairs to the interior of the beams, believing that we are obtaining a satisfactory paint job, taking into consideration that the interior of the beams are sealed from atmospheric conditions and in the interest of accelerating the work in order to complete the project.

During the application of vinyl paint on the interior of the beams, we experimented to considerable degree in order to find a solution to the problem of bubbling and pinholing. We experimented with every product that Enjay Chemical Company could furnish us, including vinyl wash primer, chlorinated rubber zinc primer, and vinyl primer. A slow-drying vinyl, formula 4518, supplied by Enjay was also applied. We also experimented with paint manufactured by Carbolene Company, both with and without a carbolene thinner. During the month of April, 16 tests were made with both Enjay and Carbolene vinyls in various combinations using both single and multiple coats. In these tests, Carbolene products appeared to give the better results. However, Carbolene products did not completely eliminate the problem of minor pinholing. We have observed that in some cases the minor pinholing disappears after a period of curing.

As a result of the above tests, we have indicated to the contractors that we would be willing to eliminate the

specifications that the manufacture of the vinyl paint be the same as the manufacture of the zinc primer. Both painting subcontractors have indicated to us that if they had freedom of choice of vinyls, they would have chosen a different paint supplier. A price agreement for each project will be submitted covering this change in specifications. We have advised the contractors that if they can provide a vinyl paint which produces a better product but which results in additional cost, the State would bear this extra cost. This information was given to Mr. H. A. Schell of your office prior to advising the contractors.

We have advised the contractors to change the color of the vinyl paint from the dark green originally specified to a color known as "Celadon Green", which more nearly approaches the color of concrete and which will present a more esthetically pleasing structure. There will be minor repainting on some small areas which have already been painted with the darker green. Any such repainting work will be covered by appropriate price agreements which will be submitted to you for consideration.

Very truly yours,

R. L. Porter
State Highway Engineer

By

A. E. Johnson
Assistant State Highway Engineer

AEJ:ms
Attachments

cc R. L. Porter
Tom Edwards
I. D. Merchant
Ed Hardt
John Howard
Robert Shotwell

OREGON STATE HIGHWAY DIVISION

(Corrected Copy)

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

August 16, 1971

Drake-Willamette Joint Venturers
1201 N. Loring Street
Portland, OR 97227

Gentlemen:

Re: East Fremont Interchange
Contracts 7310 and 7311

Based on meetings between the affected contractors, Canron, Cantest, and Harlan, we have determined that girders having a prime coat zinc covering of 2.0 mils thickness will be acceptable for covering with the final vinyl coat subject to the repairing of erection scars, skips, holidays, and rust.

A list of the beams which our measurements have determined to be unsatisfactory is as follows:

UNIT	GIRDER SECTION
SW2	A-1
SW3	A-3, 4, 6
	B-3, 4
WN1	A-2, 3, 4, 5, 6, 7
	B-3, 4, 5
NW2	A-1, 3, 4
	B-1, 2, 3, 4
WE4	A-5, 7, 9
	B-3, 4, 7, 8, 10
	C-3, 4, 7, 9, 10
	D-3, 4, 5, 6, 7, 8, 9
EW3	A-3, 5, 7, 8, 9, 10
	B-3, 5, 8, 9, 10
	C-6, 7, 8, 9
	D-3, 4, 5, 6, 7, 8, 9, 10
WS1	A-2, 3, 4, 5, 6, 7
	B-2, 3, 4, 5, 6, 7

In order that controversy involving the cost of repairs to the prime coat painting be properly adjudicated,

Form 5-123

I would suggest you arrange through John Bond, Construction Administration Engineer, to bring these matters before the Claims Review Board at your early convenience.

Very truly yours,

R. L. Porter
State Highway Engineer

By ORIGINAL SIGNED
TOM EDWARDS

Tom Edwards
Deputy State Highway Engineer

METROPOLITAN ENGINEER
RECEIVED
JUL 20 1971
HE AME APE MOE MBE MTE

CAN TEST LTD.

1650 PANDORA STREET, VANCOUVER 6, B.C. • TELEPHONE 254-7278

Report On Paint Investigation

File No. 1063 A

Report No. 32

Reported to Canron Ltd.
Foot of Byrne
Burnaby, B.C.

RECEIVED
DRAKE
JUL 20 1971

Date 16th July 1971

E O D	R E G	J R C	F R	G G	W E S						

Further to our inspections, and testing programs concerning paint application of Rust Ban 193 at Canron Plant for the structural steel destined for the Freemont Project, we report as hereunder.

A. Atmospheric Exposure Tests - Portland, Oregon - Vancouver, B.C.

On Friday, March 12th, personnel of Canron Ltd., Plant No. 2, Burnaby, B.C. prepared 34 test panels for paint testing.

These panels were approximately 6 inches x 4 inches. In the centre of each panel was a 1.5 inch diameter hole.

For test purposes the panels were shot blasted in a manner consistent with shot blasting of structural steel for the Freemont project. After blasting, the panels were painted with Rust Ban 193 by the painting crew of Canron.

After painting the panels were transported to the laboratory of Can Test Ltd. where the acid post treatment was applied with covering equivalent to 1 gallon of acid per 400 square foot of coating. One half of the panels were acid cured and the other half were left untreated.

12 panels (6 cured, 6 uncured) were retained by Can Test Ltd. Cured and uncured samples were placed in plastic bags and retained inside the laboratory for control purposes.

The remainder of the panels (22) were returned to Canron.

10 panels (5 cured and 5 uncured) were placed on a barge containing structural bridge steel which was to be shipped to the job site at Portland.

6 panels (3 cured and 3 uncured) were retained by Canron No. 2 plant for outdoor exposure to their storage area.

The final 6 panels (3 cured, 3 uncured) were sent by Canron Ltd. to O.S.H.D. Portland, Oregon for their test purposes.

Paint thickness measurements of all test panels retained by Can Test Ltd. and those dispatched to Canron for subsequent shipping to Portland and for exposure at Canron Plant No. 2 were made and recorded by Can Test Ltd. personnel on 16 March 1971.

B. Immersion Tests on Acid Cured Coatings

In an attempt to ascertain the effect on the stability of the zinc coating when acid curing was applied immediately after painting and when applied after a delayed period of time, the following tests were conducted.

Eight test panels were prepared in a manner as described in "A" above. Four panels were acid cured two hours after painting and four after two days. The panels were then subjected to continuous immersion tests in fresh water and also in sea water.

C. Effect of Acid Curing on Zinc Coatings (Rust Ban 193)

The purpose of these laboratory tests primarily was to ascertain the action of acid post treatment of Rust Ban 193. During the investigation particular attention was directed to any subsequent loss of film thickness either by chemical dissolution or by physical deterioration.

Rust Ban 193 was applied to test panels which had been blasted to white metal simultaneously with blasting of structural steel being used on this project. After cleaning a single coat of Rust Ban 193 was applied by the regular painting crew to the panels during the course of normal shop painting of the fabricated steel structure. After preparation of the panels as described above, they were transported to our Vancouver laboratory for assessment of the film after acid post treatment.

The manufacturer recommends an application of curing agent of approximately 1 gal/400 sq. ft. - this was calculated to be 0.8 cc/test area. Curing agent equivalent to $\frac{1}{2}$, 1, 2 and 4 times the recommended application level were applied to the test areas and were spread evenly over the surface with a rubber spatula.

The curing agent, applied as above, was allowed to remain in contact with the dried paint film for periods of 4, 24 and 48 hours. After these periods of time the residual curing agent was washed from the surface. After the prescribed contact time the samples were allowed to dry for 16 hours and then an additional 24 hours with thickness readings being taken after these times.

File No. 1063 A
Report No. 32
16 July 1971

TEST RESULTS - SERIES A

Panels Exposed to Atmospheric Conditions at Job Site, Portland, Oregon

(a) Acid Cured

Panel Identification	Initial March 16	Loss of Film Thickness in Mils			
		April 21	May 26	June 23	July 15
No. 21	-	-0.1	-0.5	-0.6	-0.7
	-	+0.1	+0.2	-0.1	0
	-	+0.1	-0.5	-0.5	-0.5
No. 22 *	-	-3.0	-3.1	-3.6	-3.8
*	-	-1.3	-1.6	-1.8	-1.4
	-	+0.1	0	-0.4	-0.6
No. 23	-	+0.5	+0.5	+0.3	+0.3
	-	-0.1	-0.4	-0.6	-0.3
	-	-0.3	-0.5	-1.0	-1.0
No. 24	-	-0.3	-0.5	-0.6	-0.6
	-	+0.1	-0.2	-0.2	-0.6
	-	-0.1	-0.2	-0.7	-0.7
No. 25	-	-0.3	-0.4	-1.0	-0.9
	-	+0.2	0	-0.7	-0.8
	-	-0.6	-1.3	-0.9	-1.2
Average Loss in Mils	-	-0.05	-0.3	-0.5	-0.6

* These figures appear abnormally high and therefore they were not used in the calculation of the averages.

File No. 1063 A
Report No. 32
16 July 1971

TEST RESULTS (Con't)

Panels Exposed to Atmospheric Conditions at Job Site, Portland, Oregon

(b) Not Acid Cured

Panel Identification	Initial March 16	Loss of Film Thickness In Mils April 21	May 26	June 23	July 15
No. 26	-	-0.5	-0.5	-0.5	-0.7
	-	+0.1	+0.3	+0.5	+0.4
	-	-0.2	-0.4	-0.7	-0.7
No. 27	-	-0.1	-0.3	-0.8	-0.8
	-	+0.3	-0.6	-0.8	-0.7
	-	-0.3	-0.4	-0.3	-0.4
No. 28	-	-0.1	- 0 -	-0.1	-0.4
	-	-0.5	-0.4	-0.6	-0.5
	-	-0.3	-0.5	-1.0	-1.1
No. 29	-	-0.1	-0.5	-0.7	-0.9
	-	-0.2	-0.2	-1.0	-0.8
	-	-0.4	-0.6	-0.6	-0.5
No. 30	-	-0.5	-0.4	-0.7	-0.8
	-	-0.1	- 0 -	-0.1	-0.3
	-	-0.1	- 0 -	-0.6	-0.7
Average Loss In Mils	-	-0.2	-0.3	-0.5	-0.5

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TEST RESULTS (Con't)

Panels Exposed to Atmospheric Conditions at Canron Storage Area

(a) Acid Cured

Panel Identification	Initial March 16	Loss of Film Thickness In Mils April 12	May 28	July 15
No. 15	-	-0.1	-0.3	-0.4
	-	-1.4	-1.8	-1.8
	-	+0.6	+0.2	+0.1
	-	-0.2	-0.7	-0.8
No. 16	-	+0.1	- 0 -	-0.4
	-	+0.3	+0.3	+0.1
	-	+0.3	- 0 -	-0.2
	-	- 0 -	- 0 -	-0.1
No. 17	-	+0.8	+0.4	+0.4
	-	- 0 -	+0.1	-0.2
	-	+0.1	-0.2	- 0 -
	-	+0.5	+0.5	+0.5
Average Loss in Mils	-	+0.08	-0.12	Nil

../6

STATE OF OREGON

MICROFILMED PUBLIC RECORD

(In accordance with the provisions of ORS 192.040 through 192.070)

Name of Agency: Oregon Department of Transportation

Title of Record Series: Construction Contracts

Arrangement of Records: By Contract Number

Index:

INDEXING: Begins with: Contract #7289 Ends with: Contract #7311 folder #1

FLASH CARDS: Begin Each Contract

Remarks: #7289 continues from reel 141
#7311 folder #1 continues on reel 143

Reel No. 143 Reduction Ratio 21:1 Project No.

Camera: Name Bell & Howell Model File Master Film Recordak AHU. MICROFILM 1460

CAMERA OPERATOR'S CERTIFICATE

Certification: I hereby certify that I have on this 21st day of May, 19 81 photographed the documents appearing on this roll of film, that they are true copies of documents, found in the record file described above, and that the integrity of the above described record file has been maintained on the film by microfilming each document in the exact order in which it was found in the file - with the exception, if any, of documents omitted because of technical difficulties and/or by error, as indicated on the film in the cross-reference notes or retake certificate.

I hereby further certify that the microfilm on which these documents are recorded was procured as permanent film of the slow burning cellulose ester or polyester type known as safety photographic film, conforming to applicable standards of the American National Standards Institute; and that the processing conforms to the standards for permanent film; and that samples of film processed by this service are periodically tested.

Signature Silvar Storm